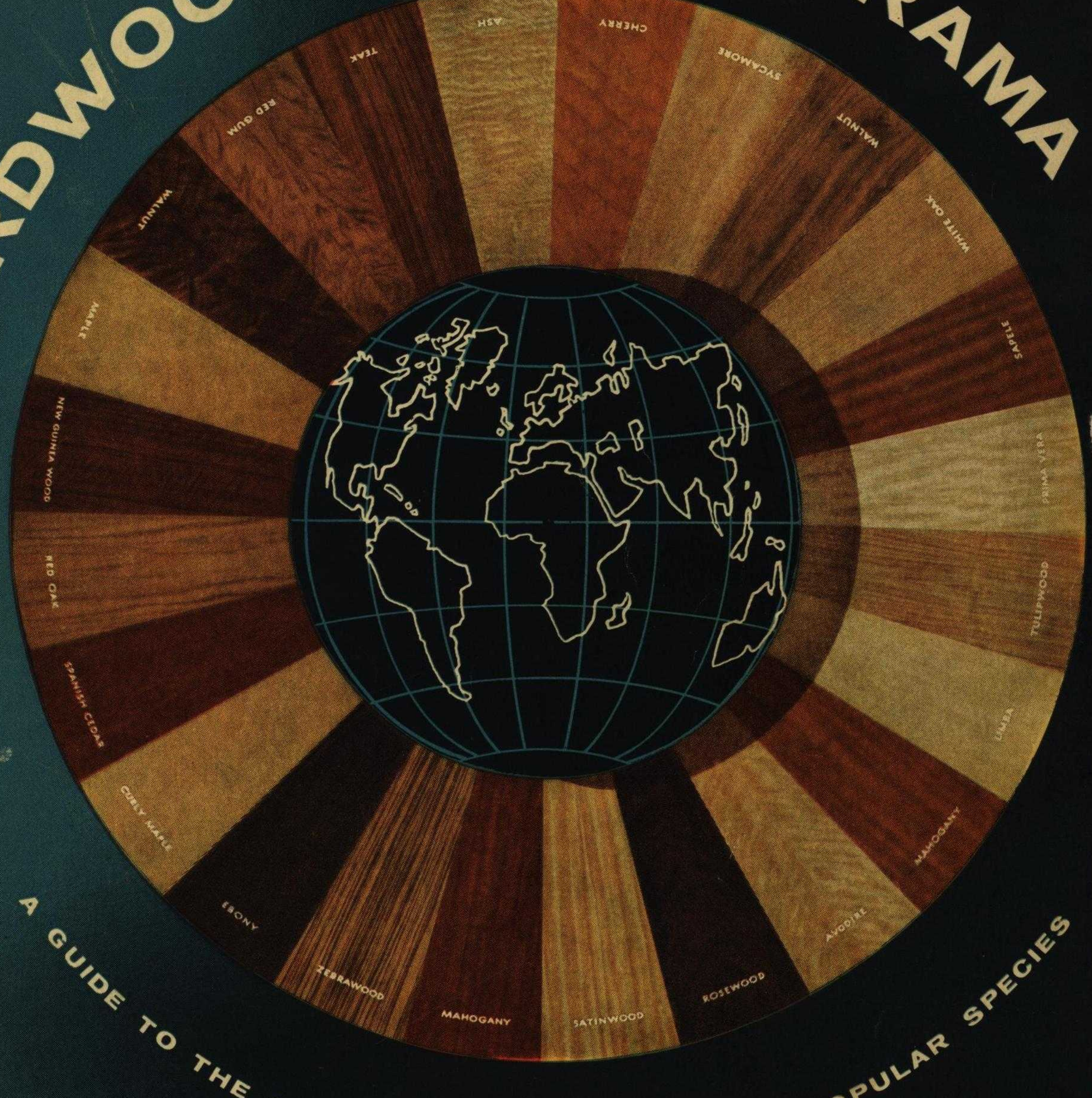
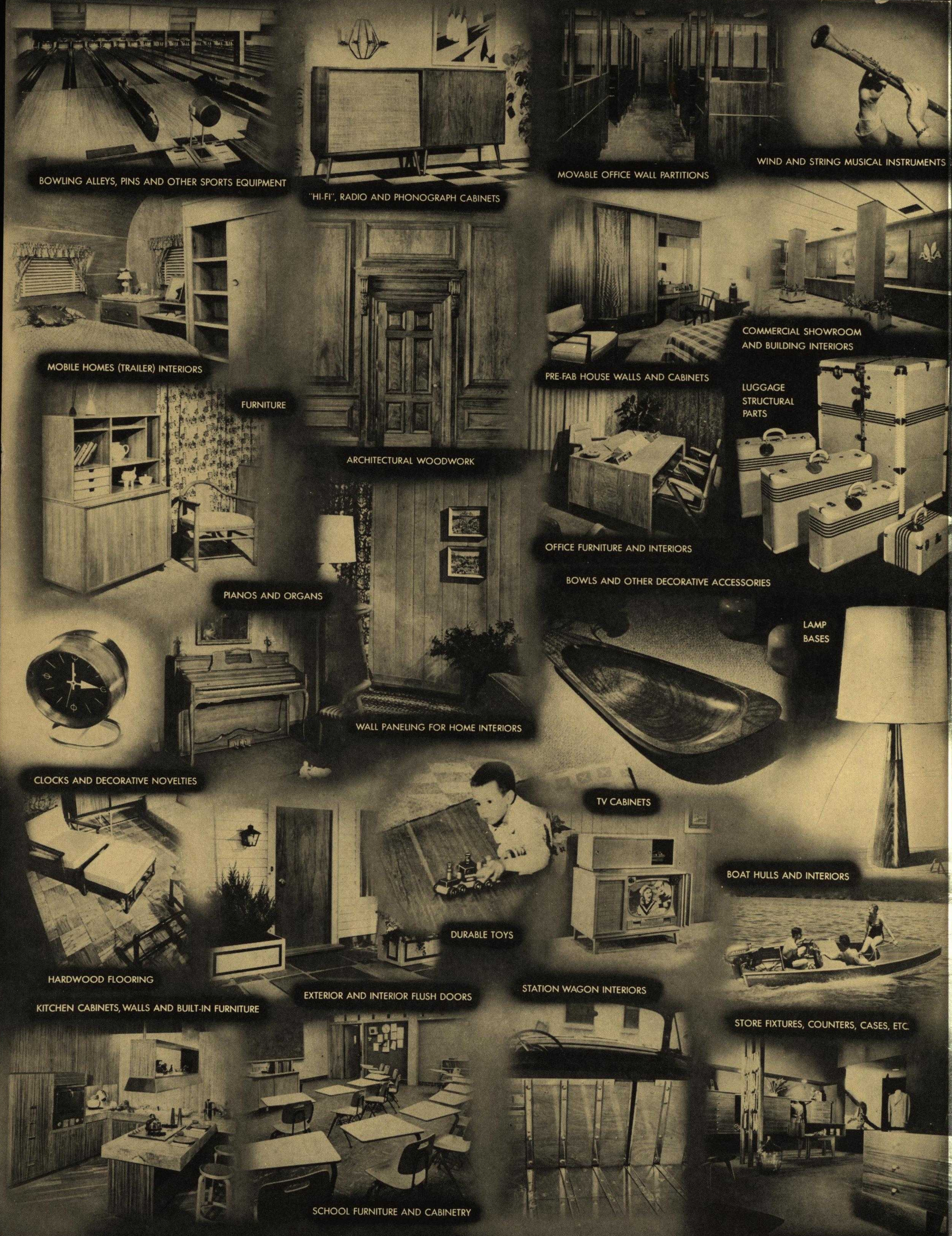
FINE HARDWOODS SELECTORAMA



A GUIDE TO THE SELECTION AND USE OF THE POPULAR SPECIES

A.I.A. FILE 19-E-5

PRICE $1.50


BOWLING ALLEYS, PINS AND OTHER SPORTS EQUIPMENT
"HI-FI", RADIO AND PHONOGRAPH CABINETS
MOVABLE OFFICE WALL PARTITIONS
WIND AND STRING MUSICAL INSTRUMENTS
MOBILE HOMES (TRAILER) INTERIORS
COMMERCIAL SHOWROOM
AND BUILDING INTERIORS
PRE-FAB HOUSE WALLS AND CABINETS
FURNITURE
LUGGAGE
STRUCTURAL
PARTS
ARCHITECTURAL WOODWORK
OFFICE FURNITURE AND INTERIORS
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WALL PANELING FOR HOME INTERIORS
CLOCKS AND DECORATIVE NOVELTIES
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STORE FIXTURES, COUNTERS, CASES, ETC.
SCHOOL FURNITURE AND CABINETRY

New horizons to a world of better living with hardwoods

Wood is man's oldest, yet most modern material. Even in this age of synthetic and metallurgical miracles, fine hardwoods still enhance and serve innumerable needs of modern living as no other material can.

Today, as in centuries past, handsome hardwood furnishings and interiors are a hallmark of prestige . . . preferred by those who know and want the finest. Genuine woods have a versatile warmth and beauty that only nature can create. The individuality and beauty of hardwoods can never be successfully imitated.

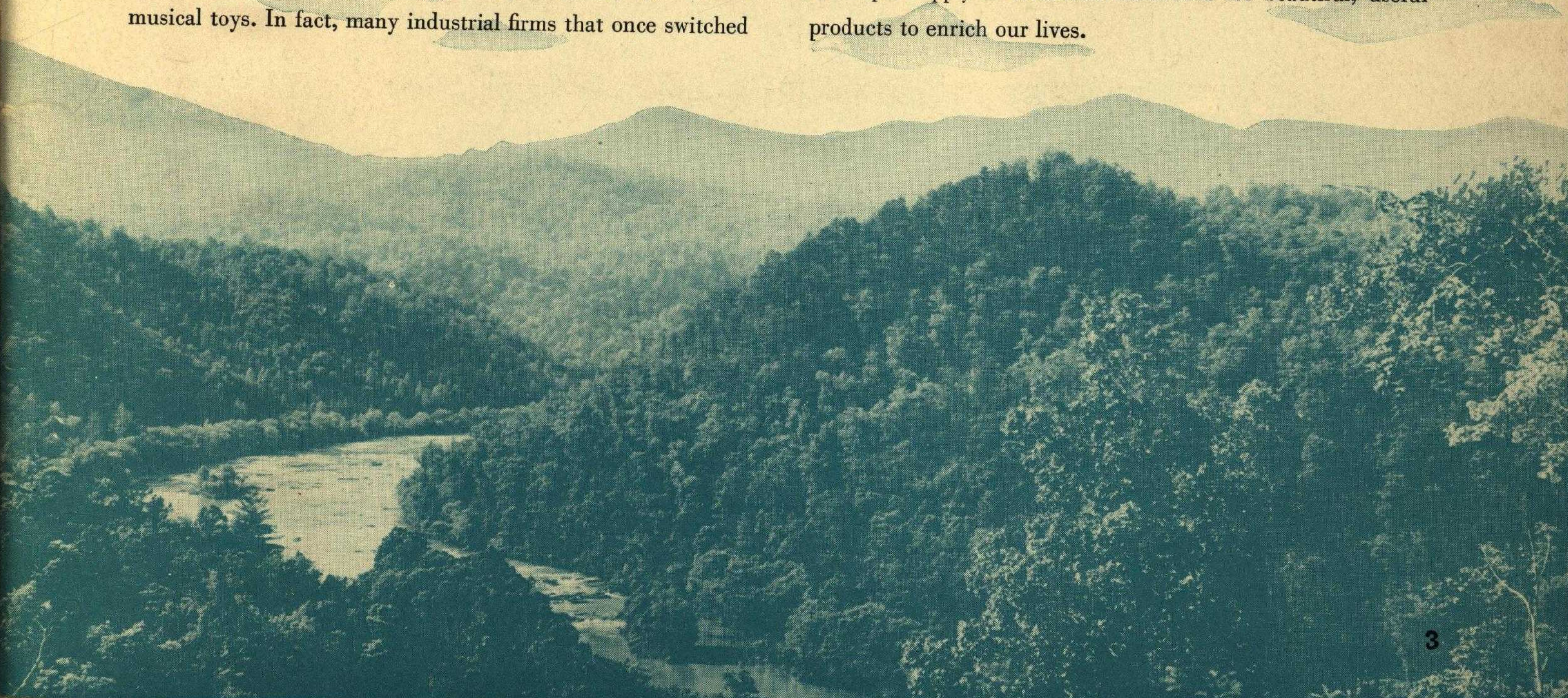
No longer however, may only the wealthy enjoy the natural beauty of fine hardwoods. In our time modern logging and production methods have brought these treasures of the forest within the reach of all. A wealth of fine hardwoods are available today in quantities and at prices that make them practical not only for furnishings and interiors, but for many other everyday household products which bring joy and convenience to modern living.

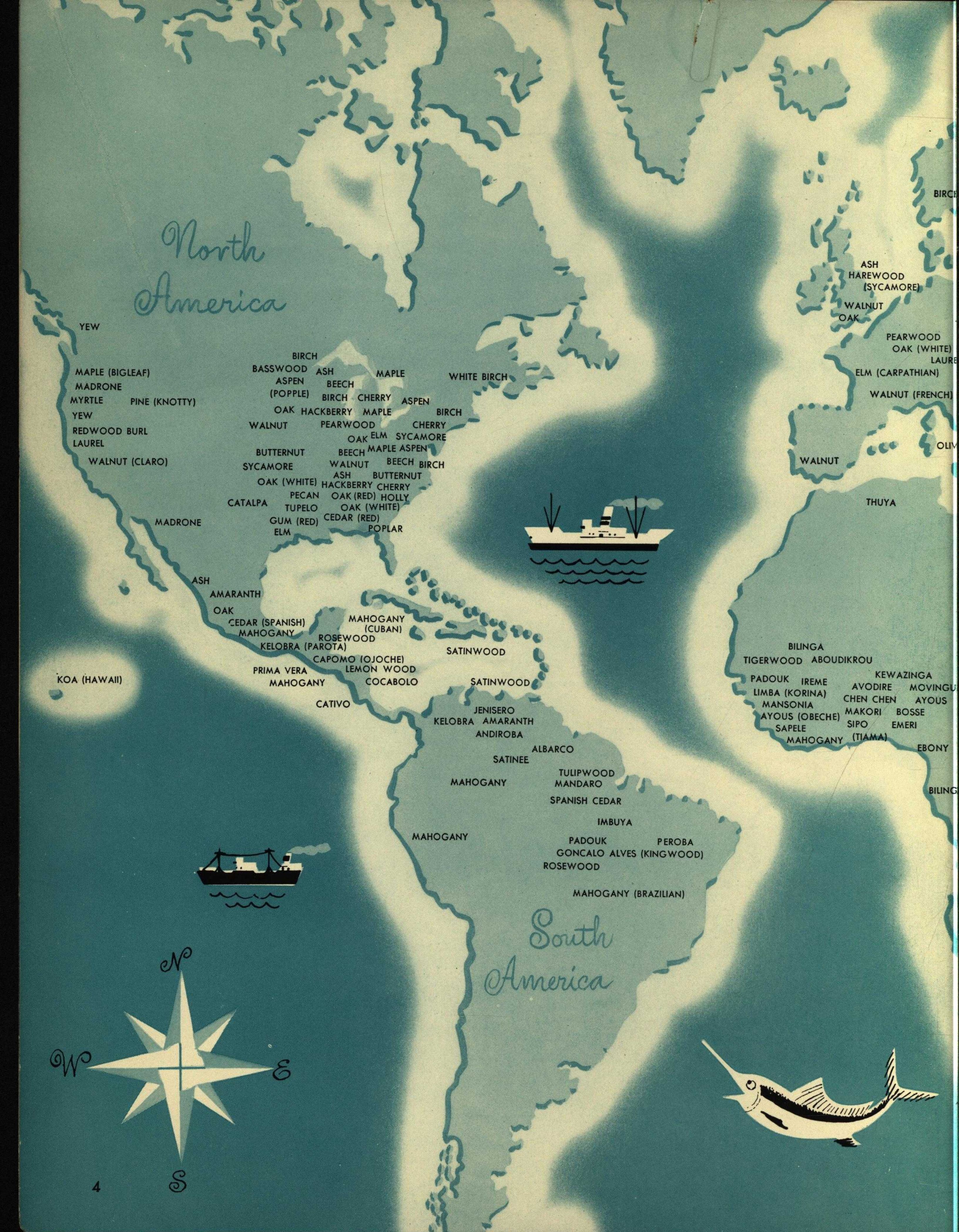
There are species of fine hardwoods to meet many specialized needs. Because of specific physical and appearance properties, some hardwoods are preferred for furniture, paneling, special millwork, flooring, decorative accessories, fixtures and construction; others for such everyday objects as luggage, sporting equipment, boats, display signs and stands, packaging, airplanes and musical toys. In fact, many industrial firms that once switched from wood to "newer" materials have returned to hardwoods because of their unique combinations of durability and special physical properties.

In the fabrication of musical instruments it is a cherished tradition to use beautiful woods for violins, pianos and other instruments, as well as TV, "hi-fi," and radio cabinets. Hardwoods not only impart superb resonance to all musical and reproduction instruments, the intrinsic beauty of the woods adds to pride of ownership.

Aside from beauty, the physical properties that make hardwoods suitable for so many products, include: workability, hardness, density, porosity, elasticity, flexibility and bending strength, resonance and tonal qualities, shock-resistance, extremely favorable strength-weight ratios, stiffness, ability to hold paint and finishes or take a polish, insulating properties, stability, vibration-resistance, light weight, large sizes, abrasion-resistance, and durability.

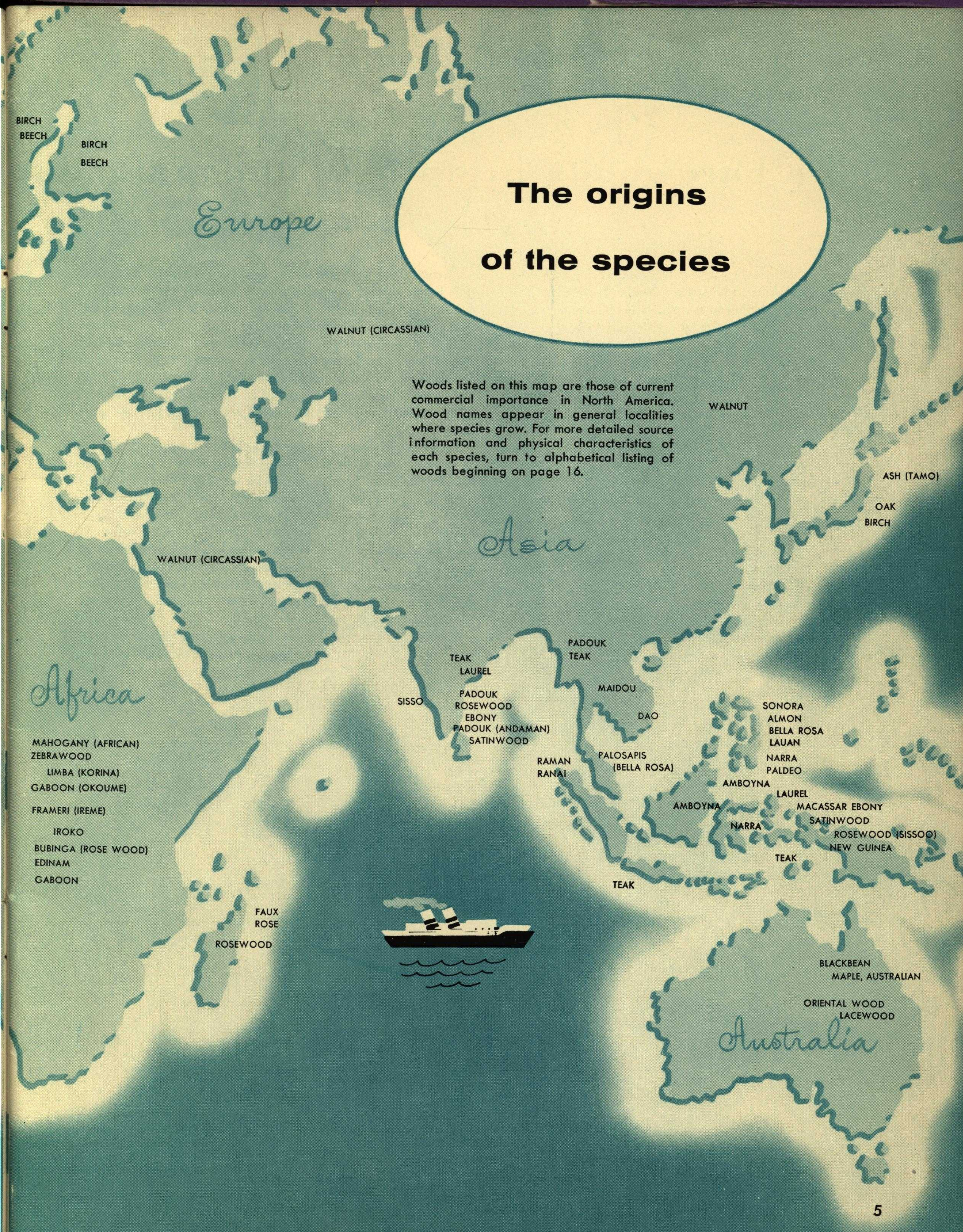
Modern research is still further expanding our understanding of the properties of fine hardwoods . . . and constantly creating new uses and applications. Fortunately our hardwoods forests are a natural resource, that replenishes itself and which, through planned reforestation, is ever expanding. We will always have an ample supply of treasured hardwoods for beautiful, useful products to enrich our lives.




North America
BIRC
ASH
HAREWOOD
(SYCAMORE)
WALNUT
OAK
YEW
PEARWOOD
OAK (WHITE)
LAURE
ELM (CARPATHIAN)
WALNUT (FRENCH)
MAPLE (BIGLEAF)
MADRONE
MYRTLE
PINE (KNOTTY)
YEW
REDWOOD BURL
LAUREL
WALNUT (CLARO)
BIRCH
BASSWOOD
ASH
ASPEN
(POPPLE)
BEECH
MAPLE
WHITE BIRCH
BIRCH
CHERRY
ASPEN
OAK
HACKBERRY
MAPLE
BIRCH
WALNUT
PEARWOOD
CHERRY
OAK
ELM
SYCAMORE
BUTTERNUT
BEECH
MAPLE
ASPEN
SYCAMORE
WALNUT
BEECH
BIRCH
ASH
BUTTERNUT
OAK (WHITE)
HACKBERRY
CHERRY
PECAN
OAK (RED)
HOLLY
CATALPA
TUPELO
OAK (WHITE)
GUM (RED)
CEDAR (RED)
MADRONE
ELM
POPLAR
OLIV
WALNUT
THUYA
ASH
AMARANTH
OAK
CEDAR (SPANISH)
MAHOGANY
MAHOGANY
(CUBAN)
ROSEWOOD
KELOBRA (PAROTA)
SATINWOOD
CAPOMO (OJOCHE)
LEMON WOOD
PRIMA VERA
MAHOGANY
COCABOLO
KOA (HAWAII)
SATINWOOD
CATIVO
BILINGA
TIGERWOOD
ABOUDIKROU
KEWAZINGA
PADOUK
IREME
AVODIRE
MOVINGU
LIMBA (KORINA)
CHEN CHEN
AYOUS
MANSONIA
MAKORI
BOSSE
AYOUS (OBECHE)
SIPO
EMERI
SAPELE
(TIAMA)
MAHOGANY
EBONY
JENISERO
KELOBRA
AMARANTH
ANDIROBA
ALBARCO
SATINEE
TULIPWOOD
MAHOGANY
MANDARO
SPANISH CEDAR
BILING
IMBUYA
MAHOGANY
PADOUK
PEROBA
GONCALO ALVES (KINGWOOD)
ROSEWOOD
MAHOGANY (BRAZILIAN)
South America
N
W
E
S

The origins of the species

Woods listed on this map are those of current commercial importance in North America. Wood names appear in general localities where species grow. For more detailed source information and physical characteristics of each species, turn to alphabetical listing of woods beginning on page 16.



Fine hardwoods bring new dimensions tc

Virtually unlimited creative effects can be achieved by the designer or architect who works with fine hardwoods. The infinite variety of grain and figure patterns, color and textural interest found in the different hardwoods permits one to choose a naturally beautiful wood that expresses the exact mood one wishes to capture . . . formal or informal . . . friendly and intimate, or impressive and distinguished . . . austere or lavish . . . casual or sophisticated. Some woods are almost silken, with ever-changing highlights and shadows . . . others are strong, sturdy and rugged in character.

For interiors or home furnishings, whether creating traditional adaptations or modern originals, one can choose a hardwood suitable for any design . . . either an old favorite wood or one of the many interesting woods only currently becoming available in commercial quantities.

Within a species, one can further select from a wide range of figure and grain patterns. Like finger-prints, the grain patterns of any two trees are never exactly alike. This ever-interesting individualism is one of the most appealing factors of genuine woods when compared with monotonous patterns of substitutes and imitations, or with other materials. And these natural figure and grain variations—like all of nature's own designs always blend with each other.

Having selected the species and figure or grain pattern, one has only begun to appreciate wood's great versatility and flexibility as a design medium. Hardwoods can be carved, molded, shaped and bent . . . they can be inlaid or overlaid . . . they can be combined with each other for striking effect, or combined with other materials.

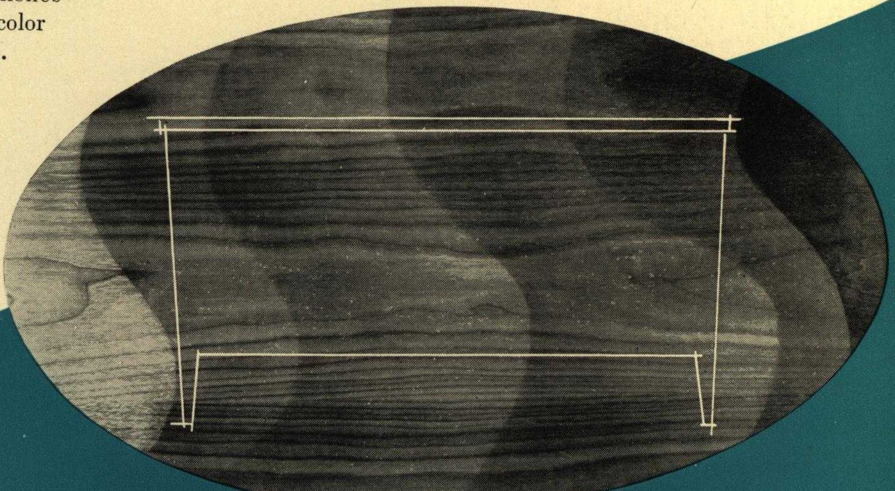
Hardwoods can be used in solid or plywood form (known as *bonded*) or in combinations. The naturally interesting wood grain and figure patterns can be featured in charming random, natural effects or matched in striking designs made of one or more grain patterns.

Further refinement of design mood is possible through the use of finishes. Today, finishes are generally more transparent to reveal wood's full beauty. Also, with durable modern finishes a great variety of light to dark effects can be created within a single species, supplementing the broad color change found naturally in hardwoods.

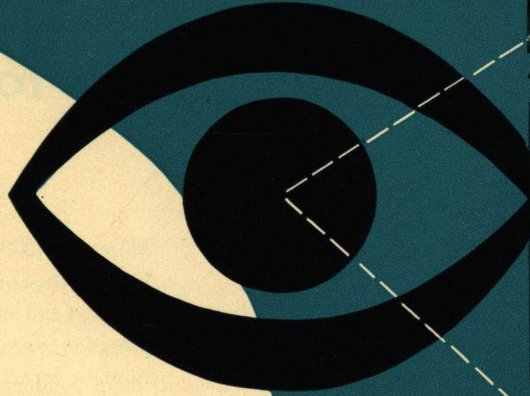
Because of these many versatile features of hardwoods, that cannot be successfully imitated, it is small wonder that hardwoods have remained through the centuries the mark of fine quality and prestige preferred by designers of the finest interiors, furnishings, musical instruments and other objects of beauty and service. No other material offers the designer or architect such inspiration for originality of design . . . or such pleasing results.

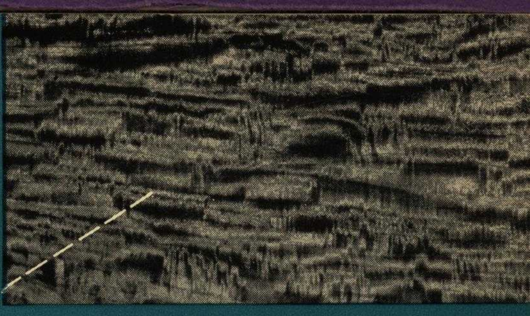
COLOR RANGE

A wide spectrum of colors abound naturally in fine hardwoods . . . from pale almond tones and citron yellows to tawny browns and deep sultry blackbrowns . . . through many exciting tints and shades of red, yellow, purple, orange, green and gray . . . found alone and in various combinations. Special finishes further expand hardwood's natural color range to create unlimited color effects. The range of light to dark tones which can be achieved is indicated on the walnut panel at right.

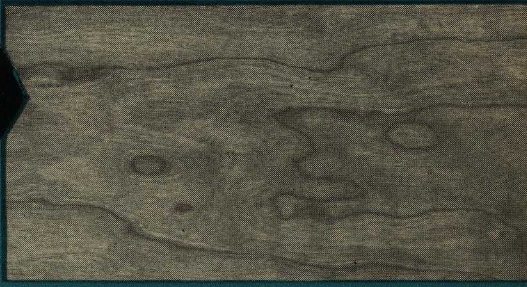


design . . .

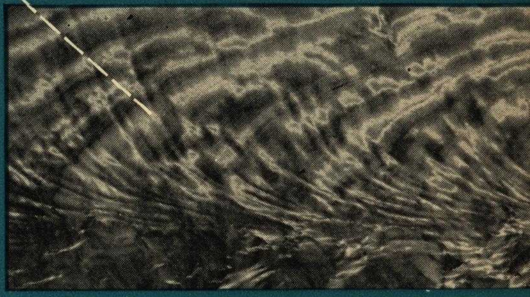




AFRICAN MAHOGANY (MOTTLED)



AMERICAN CHERRY



AVODIRE CROTCH

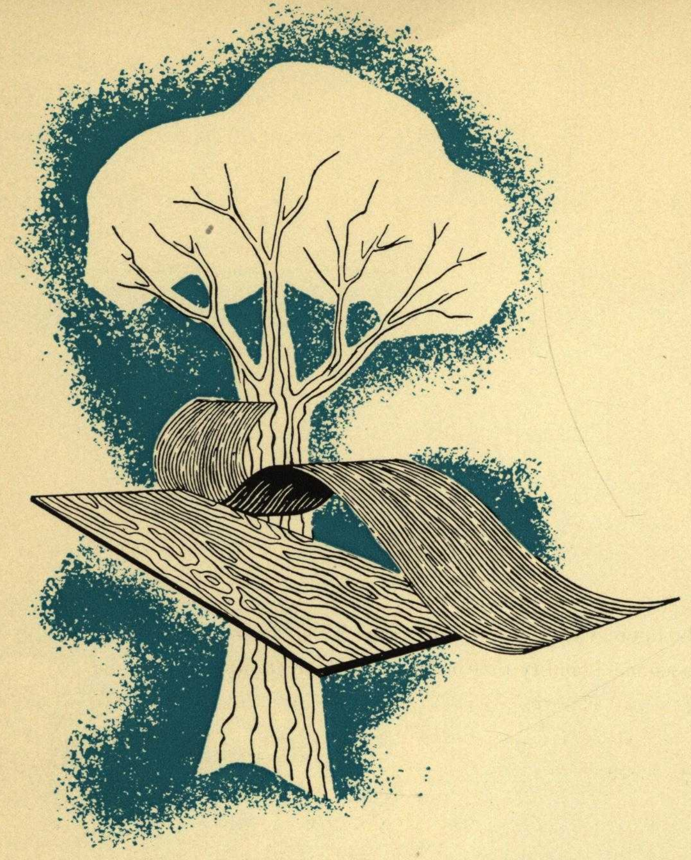
VISUAL TEXTURE

The natural grain and figure patterns inherent in all fine hardwoods add a visual design dimension of depth to fine hardwood products. These grain markings add a surface interest, with highlights and shadows that can't be duplicated . . . create an ever-changing panorama of beauty as light strikes the wood from various angles. On the one piece of fine sliced walnut shown here, 6 different tones of finish.

PHYSICAL TEXTURE

Wood is pleasant and friendly to the touch as well as the eye. It is warm in winter, cool in summer . . . always comfortable to live with. Wood's appealing visual texture and its ability to take fine finishes make one want to reach out and feel a beautiful piece of hardwood.

MYRTLE CLUSTER



How modern technolog new forms of beauty an

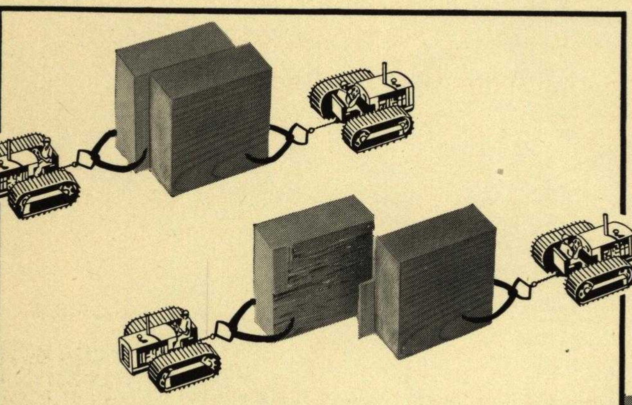
More than 200 species from the more than 99,000 varieties of hardwoods, are available today in commercial quantities. From this vast and varied resource, modern technology and controlled precision manufacturing methods make these woods available in many forms for many special uses.

With advances in cutting methods, finishes, adhesives, molding systems and various scientific wood treatments, hardwood —man's oldest material—is now as modern as tomorrow.

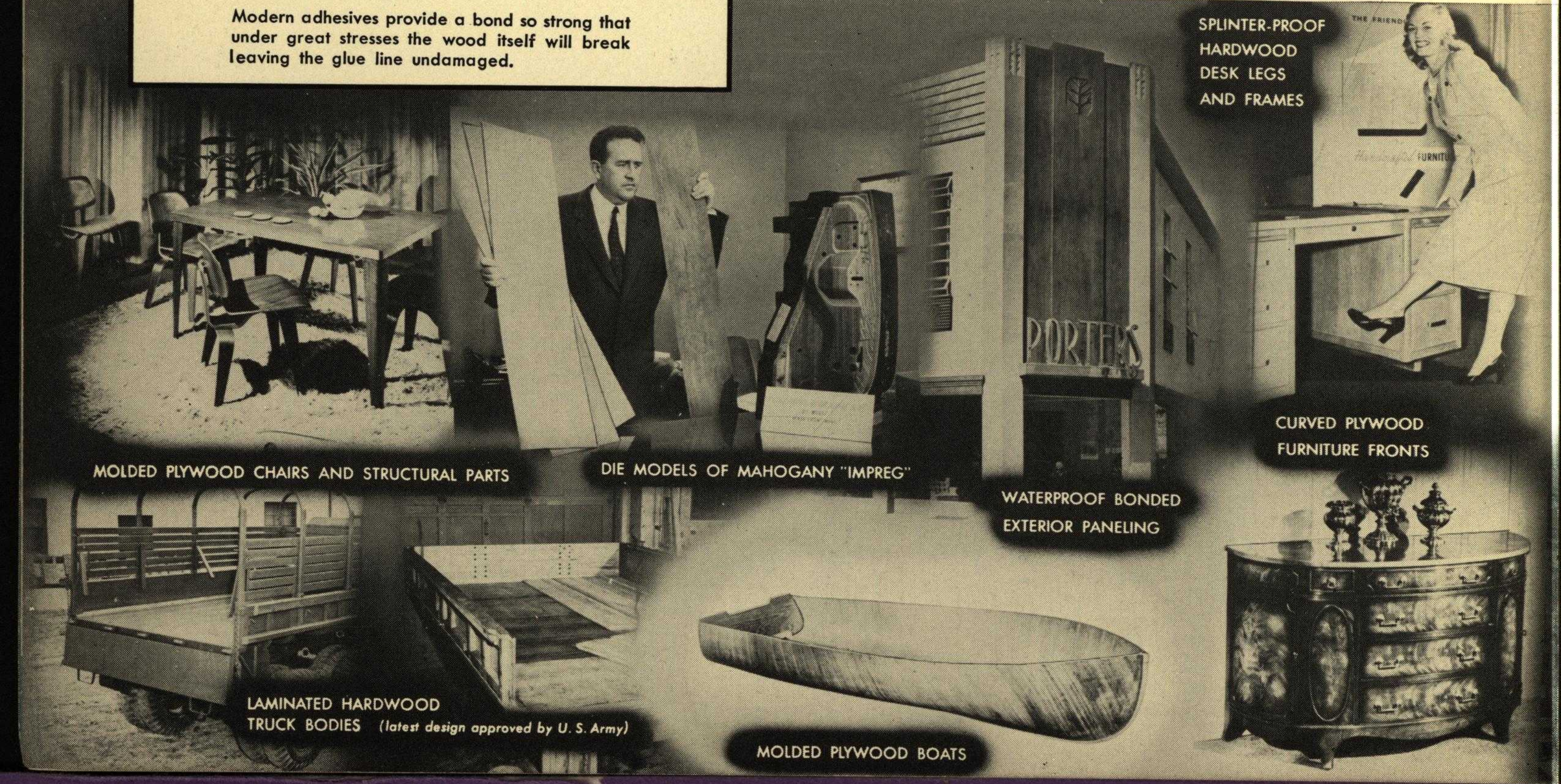
Among the great technological advances of our age are those that have taken place in the plywood industry. New waterproof adhesives are so durable they make plywood that can even be boiled without damage to the glue line, thus making hardwood plywood an ideal material for boats, flooring to be used over concrete, and wherever extreme moisture conditions exist.

New bonding methods make it possible to weld wood with various other materials to meet specific needs, such as metal-faced plywood for lightweight airplane use, and cigarette-proof plywood—with a thin aluminum layer beneath the beautiful face veneer—for furniture and fixture use.

Plywood also offers the greatest opportunity for creating



Modern adhesives provide a bond so strong that under great stresses the wood itself will break leaving the glue line undamaged.



SPLINTER-PROOF HARDWOOD DESK LEGS AND FRAMES

MOLDED PLYWOOD CHAIRS AND STRUCTURAL PARTS

DIE MODELS OF MAHOGANY "IMPREG"

CURVED PLYWOOD FURNITURE FRONTS

WATERPROOF BONDED EXTERIOR PANELING

LAMINATED HARDWOOD TRUCK BODIES *(latest design approved by U. S. Army)*

MOLDED PLYWOOD BOATS

transforms the hardwood log into usefulness . . .

"wood-to-order." In addition to the many special matched design effects and large panel sizes plywood construction makes possible, it offers exceptional opportunities for tailoring wood to meet many divergent needs.

Through precision manufacturing, with various numbers of plies and with assorted ply thicknesses and woods and various core materials, plywood offers such special physical properties as light weight, great dimensional stability and strength and high insulation values.

The bending-strength properties of plywood make it possible to mold to order various curved surfaces (even compound) for such purposes as church pews, luggage cases, tables, boat hulls, contour chairs, curved furniture fronts, laminated truck bodies and various molded decorative accessories such as trays.

Veneers can also be laminated to form extremely strong boards of any thickness for structural and industrial uses.

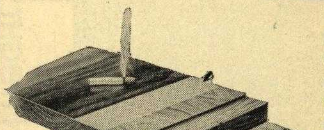
From laboratory research have also come various treatments combining the exceptional qualities of hardwoods with new properties that open still broader fields for hardwood use. For example, hardwoods can be impregnated with plastics and compressed for even higher density and strength. These new densified woods provide amazing strength for such items as chair, desk and table legs and open the way for many fresh industrial uses.

By impregnating wood with resin it can be given precision dimensional stability that makes it a preferred materials for die models and patterns. This resin impregnation also gives hardwoods extremely high heat resistance, acid resistance and electrical resistivity.

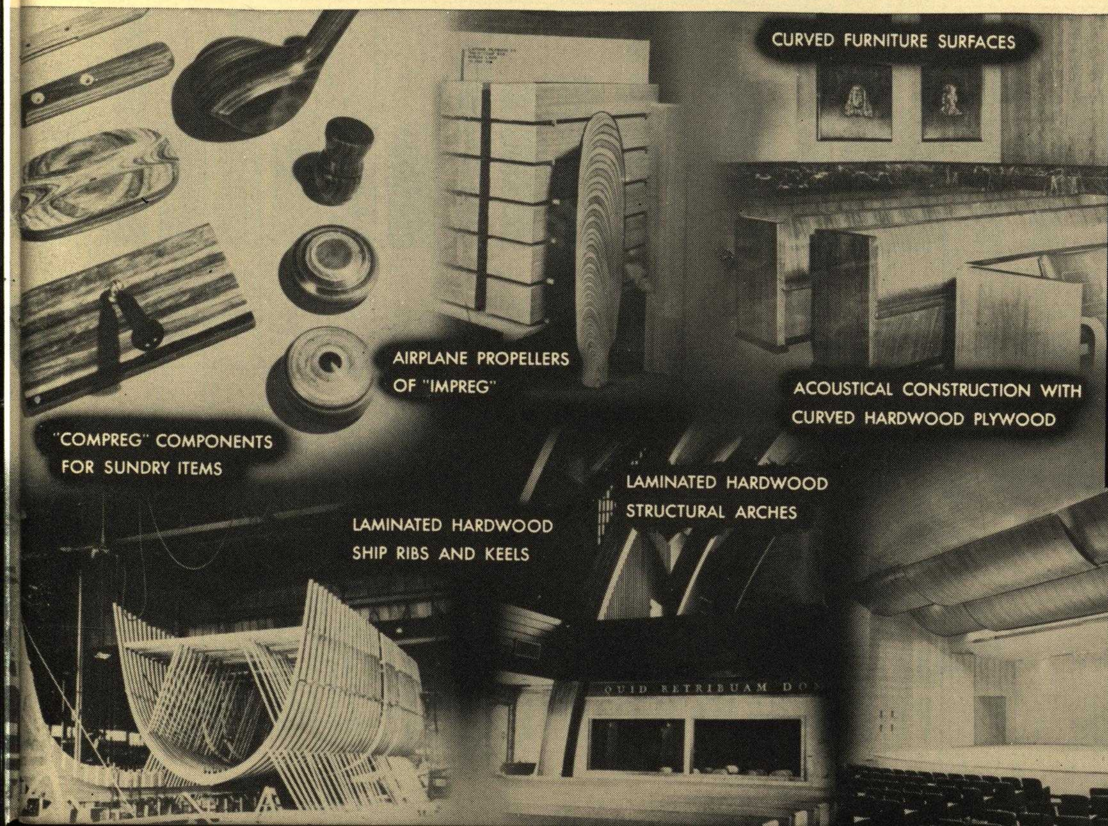
Significant advances have also been made in finishes and preservative treatments for hardwoods. Extremely durable new finishes have been developed that imbue hardwoods with a resistance to marring, acid, alcohol and scratches, which formerly could be achieved only with less attractive materials.

From modern laboratories and woodworking plants many new wood products are constantly emerging to meet modern needs. As research learns more and more about the properties of wood, it is being increasingly appreciated as the finest and most versatile of modern materials.

Today fine hardwood surfaces are being protected from cigarette burns and other heat marring by inserting aluminum foil under outer layer of plywood construction. Rapid dispersion of heat by foil dissipates surface temperature.



Burning cigarette has no effect on panel protected by this "Beautyguard" process with built-in aluminum foil under outer ply.



CURVED FURNITURE SURFACES

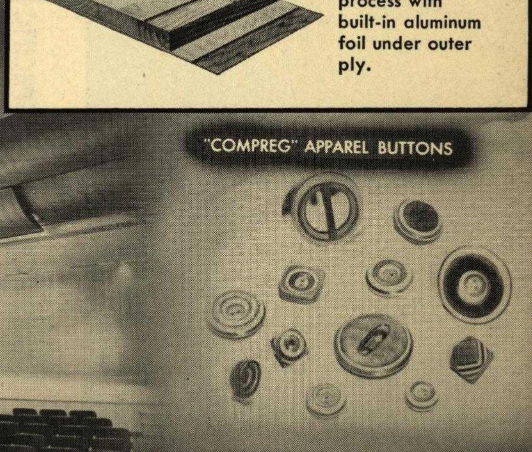
AIRPLANE PROPELLERS OF "IMPREG"

ACOUSTICAL CONSTRUCTION WITH CURVED HARDWOOD PLYWOOD

"COMPREG" COMPONENTS FOR SUNDRY ITEMS

LAMINATED HARDWOOD STRUCTURAL ARCHES

LAMINATED HARDWOOD SHIP RIBS AND KEELS



"COMPREG" APPAREL BUTTONS

Comparative physical properties of some popular species

SPECIES	SPECIFIC GRAVITY Based on green volume and oven dry weight	WEIGHT pounds per cubic ft. at 12% moisture content	STRENGTH compressive strength (endwise)	STIFFNESS	HARDNESS	SHOCK RESISTING ABILITY	BENDING STRENGTH	SHRINKAGE (Volumetric) A low rating in this property is desirable
ALDER, RED *Alnus rubra*	.37	28	82	139	48	71	76	123
ASH, WHITE Average of 4 species	.54	41	106	161	108	139	110	126
ASPEN *Populus tremuloides*	.35	27	58	107	31	67	63	111
AVODIRE* *Turraeanthus africana*		36	97	125	93	81	96	105
BASSWOOD *Tilia americana*	.32	26	62	126	31	54	61	158
BEECH *Fagus grandifolia*	.56	45	94	169	96	135	102	162
BIRCH, SWEET *Betula lenta*	.60	46	105	207	104	159	117	154
BIRCH, YELLOW *Betula alleghaniensis*	.55	43	98	174	86	171	106	166
BUBINGA* *Guibourtia demeusii*		55			157			148
BUTTERNUT *Juglans cinerea*	.36	27	68	115	40	80	64	100
CATALPA, NORTHERN *Catalpa speciosa*	.38	29	59	110	43	95	63	73
CATIVO *Prioria Copaifera*	.40	29	60	101	50	60	68	85
CHERRY, BLACK *Prunus serotina*	.47	35	100	150	72	112	93	113
CHESTNUT *Castanea dentata*	.40	30	70	112	50	69	68	111
COTTONWOOD, EASTERN *Populus deltoides*	.37	28	64	123	36	73	62	138
CYPRESS (BALD) *Taxodium distichum*	.42	32	92	136	52	76	79	104

DOGWOOD *Cornus florida*	.64	51	101	124	154	192	100	194
EBONY (NIGERIA)* *Diospyros crassiflora*		63	174	230	258	255	196	
ELM, AMERICAN *Ulmus Americana*	.46	36	74	130	66	123	85	145
GUM, BLUE *Eucalyptus globulus*	.62	52	148	233	132	134	134	226
SWEETGUM (RED and SAP) *Liquidambar styraciflua*	.44	34	77	134	60	99	86	150
TUPELO, WATER *Nyssa aquatica*	.46	35	87	127	78	81	82	122
HACKBERRY *Celtis occidentalis*	.49	37	72	108	74	145	76	138
HICKORIES, TRUE Average of 4 species	.65	51	123	188	142	292	138	182
HOLLY *Ilex opaca*	.50	40	71	102	86	124	76	155
IREME* *Terminalia ivorensis*		34	90	121	76	68	87	131
IRONWOOD, BLACK *Krugiodendron ferreum*	1.04	80	168	254		130	157	125
IRONWOOD, AMERICAN (HORNBEAM) *Carpinus caroliniana*	.58	48	66	114	116	296	76	184
LIMBA* *Terminalia superba*	.45	34	73	101	70		58	140
LOCUST, BLACK *Robinia pseudoacacia*	.66	48	168	220	161	170	157	103
CUCUMBER TREE, YELLOW *Magnolia acuminata*	.44	34	88	175	57	103	90	137
MAHOGANY, CUBAN *Swietenia mahogoni*	.57	41	95	123	114	71	88	60
MAHOGANY, CENTRAL AMERICAN *Swietenia species*	.45	32	111	145	76	83	98	79
MAHOGANY, AFRICAN *Khaya species*	.43	31	91	140	68	80	87	92
MAKORI* *Mimusops heckelii*		40						124
MAPLE, RED *Acer rubrum*	.49	38	87	158	79	110	93	128
MAPLE, SILVER *Acer saccharinum*	.44	33	71	106	65	93	69	114
MAPLE, SUGAR *Acer saccharum*	.57	44	106	178	115	138	114	147
MYRTLE, OREGON *Umbellularia californica*	.51	39	76	89	106	144	72	116
NARRA* *Pterocarpus indicus*	.52	42	148	159	124	149	136	69
OAKS, COMMERCIAL RED Average of 9 species	.56	44	92	168	103	139	101	143
OAKS, COMMERCIAL WHITE Average of 6 species	.59	47	93	149	109	125	99	155
ORIENTALWOOD* *Endiandra palmerstoni*		44	122	150	117		105	

SPECIES	SPECIFIC GRAVITY	WEIGHT	STRENGTH	STIFFNESS	HARDNESS	SHOCK RESISTING ABILITY	BENDING STRENGTH	SHRINKAGE (Volumetric)
OSAGE-ORANGE* *Maclura pomifera*	.76		147	153	246	397	157	89
PADAUK (AFRICAN)* *Pterocarpus soyauxii*		43			137			82
PADAUK (ANDAMAN)* *Pterocarpus dalbergioides*	.62	45	152	165	130	101	130	78
PADAUK (BURMA)* *Pterocarpus macrocarpus*	.75	54	187	196	198	159	176	
PALDAO *Dracontomelum dao*	.59	44			94			127
PECAN *Carya illinoensis*	.60	47	104	162	142	156	110	137
PEARWOOD (EUROPEAN) *Pyrus communis*		43			94			195
PHILIPPINE HARDWOODS*								
RED LAUAN *Shorea negrosensis*	.40	36	86	138	55	110	82	117
WHITE LAUAN *Pentacme contorta*		36	75	138	53	114	74	103
TANGUILE *Shorea polysperma*	.53	39	91	154	64	87	87	133
POPLAR, YELLOW *Liriodendron tulipifera*	.38	28	68	135	40	58	71	119
PRIMAVERA* *Cybistax donnell-smithii*	.40	30	102	123	74	94	106	91
ROSEWOOD (BRAZIL)* *Dalbergia nigra*		50			153			119
SAPELE* *Entandrophragma cylindricum*	.54	40	137	126	123	94	96	138
SATINWOOD (EAST INDIAN)* *Chloroxylon swietenia*	.83	67	166	181	209	132	141	147
SONORA (MANGGASINORO)* *Shorea philippinensis*	.42	31	62	116	50	88	61	
SYCAMORE *Platanus occidentalis*	.46	35	76	129	64	78	74	136
TEAK* *Tectona grandis*	.60	43	136	173	99	107	124	162
TIGERWOOD* *Lovoa klaineana*	.45	34	101	123	78	93	90	138
WALNUT, (Black) AMERICAN *Juglans nigra*	.51	39	113	167	88	124	111	116
WILLOW, BLACK *Salix nigra*	.34	26	41	70	35	91	45	126
ZEBRAWOOD* *Microberlinia brazzavillensis*	.62	48			125			156

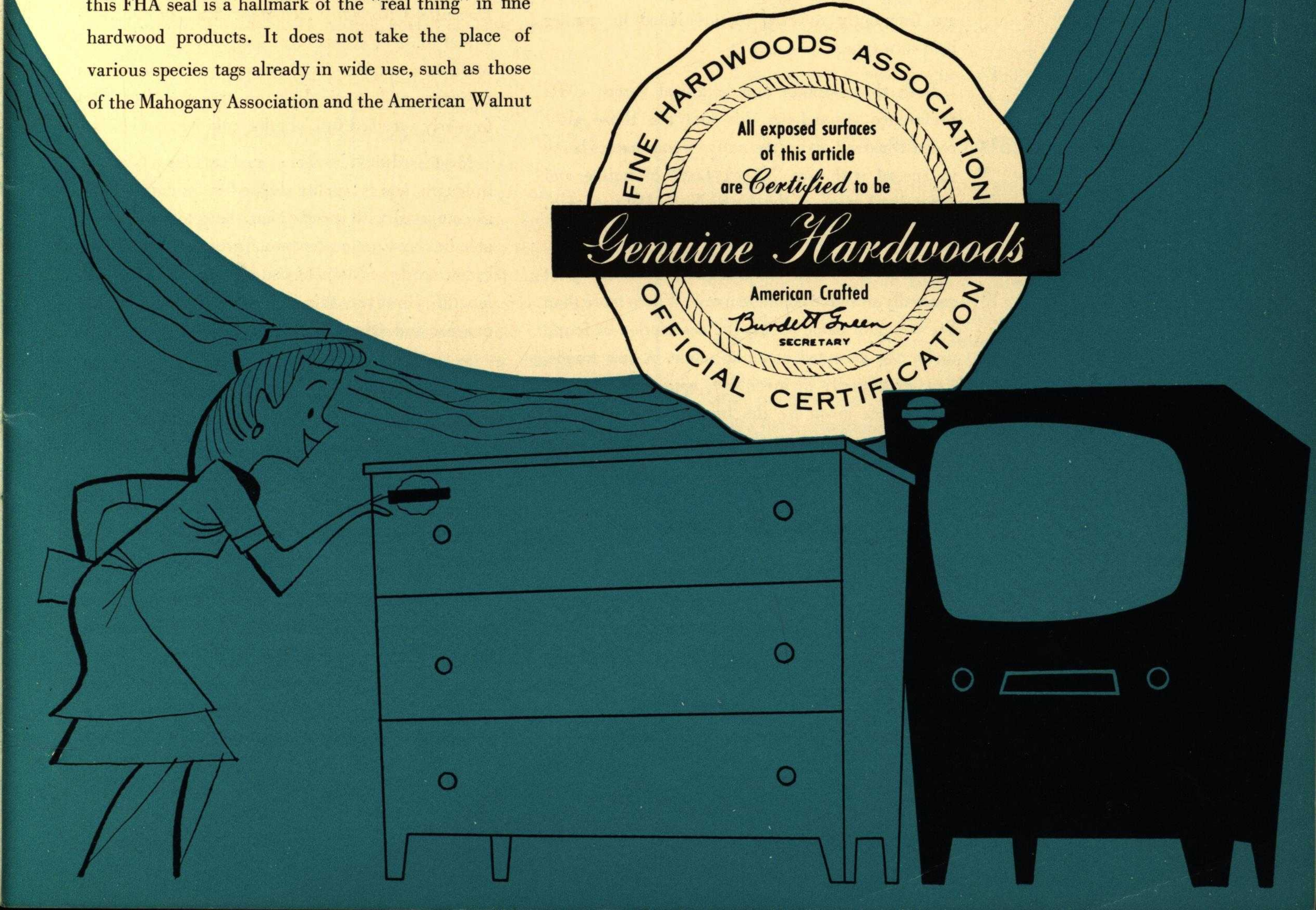
*Most of the data on these three pages of charts are from the U. S. Forest Products Laboratory. In the case of certain words marked with an asterisk (*) the tests were less extensive than in the case of native woods.

There is nothing "just as good" as genuine hardwood

It may look like wood, but is it wood? Are those intriguing grain and figure markings really "the fingerprints of nature" or are they man-made imitations of the real thing? Mrs. Consumer has a right to know, and from now on she has one sure and easy means of knowing whether or not the merchandise she selects is genuine hardwood. The Fine Hardwoods Association seal of certification (shown below) now identifies the "genuine hardwood" products of some of the nation's foremost manufacturers. This seal attests to the authenticity of the hardwood surfaces of any piece on which it appears.

Just as "sterling" distinguishes the genuine in silver, this FHA seal is a hallmark of the "real thing" in fine hardwood products. It does not take the place of various species tags already in wide use, such as those of the Mahogany Association and the American Walnut Manufacturers Association. It supplements them and in fact re-emphasizes to the consumer the authenticity of the hardwood used. In cases where species tags are not attached, or on hardwood items made of woods for which such species tags are not available, this seal is the primary means by which the consumer can quickly differentiate between genuine hardwoods and the many imitation grained and finished surfaces that are applied by decal or printed on wood or other materials.

This "genuine hardwood" seal is made available to qualifying manufacturers by The Fine Hardwoods Association.


FINE HARDWOODS ASSOCIATION
All exposed surfaces of this article are Certified to be
Genuine Hardwoods
American Crafted
Burdett Green
SECRETARY
OFFICIAL CERTIFICATION

A selection guide

Scope and Purpose of This Book

It has been the desire of the Fine Hardwoods Association to put into this one volume the essential facts concerning the more important commercially available species of hardwoods produced by our industry.

There are some 99,000 species of hardwoods in the world. However, only about 250 are normally available for use in manufacture. These are shown in bold capital letters throughout the listings which appear on the following pages. Other woods that are frequently referred to, are listed in smaller bold face type.

Both the common and botanical names given preference throughout this text are those most recently agreed upon (the native woods names being in accord with the "Check List" of native and naturalized trees of the U. S. N. S. Dept. of Agr. *Handbook No. 41*—1953).

Woods are listed alphabetically by their most generally accepted common name. Where more than one common name exists, the description is found under the accepted common name. A few woods, that are actually in inventory, appear under common names given by the importers or manufacturers who do not wish to identify them as to species or their source.

Reference Sources

For technical checking and consultation, the author has freely called upon the most reliable sources including the U.S. Forest Products Laboratory with which he was formerly associated, the Forestry Departments of the governments of Australia, and The Philippines, India and the Timber Development Association of London (for certain African woods).

Frequent reference has been made to *Timbers of The New World*, by Record and Hess, *Timbers of Tropical America*, by Record and Mill, and *Manual of The Timbers of the World*, by Howard.

In supplying practical data on color, figure types, availability, etc., the members of the Fine Hardwoods Association, have given most generously of their time and efforts.

A Special Note to Architects, Designers and Other Specifiers

Dimensions Normally Available: Sizes of the individual units or sheets of veneer, in which a desired wood is available, is of great importance to the designer, and particularly to the architect who formerly specified full lengths from floor to ceiling.

Most hardwood lumber is available from 6′ to 16′ in length, and is usually shipped in random lengths as compared with *specified* lengths commonly available in construction (softwood) lumber. On special order, hardwood lumber can be sawn to 30′ to 32′ lengths. However, this involves both considerable expense and delay.

Fine hardwood veneers are selected for both beauty and utility. They range in size from 6′ to 16′ and vary considerably, depending upon the species. The longest slicer for cutting veneers is just over 16′ in length. Very few veneer saws remain in use in the United States, and that is the only method of getting longer (than 16′) length veneers in one piece.

Matching: Fortunately, veneers offer unlimited matching possibilities. Nearly all plywood panels are (book or slip) matched to give desired widths. Other types of matching make almost any length as well as width available. These size advantages are but a by-product, for generally the interestingly matched

to a world of fine hardwoods

designs are sought primarily to give relief to large flat areas of walls or surfaces of furniture. In early Gothic architecture, a number of small units of framed or carved panels were used to cover a larger area. Today large areas of simple, flush paneling are built up in the same way. They can be made very inexpensively and permit the use of desired species (normally available in small sizes) for covering large areas.

Low Cost Factor: The cost of the face veneers for a paneled interior, or even fine furniture, is of little importance. It is generally true that the cost of the cabinetwork (labor), installation and finishing make up 95% or more of the total cost of paneling a room. Therefore, the designer or consumer may have his unrestricted choice of fine woods, especially when plywood is being used. When stock panels are available, there is but little cost difference between woods such as maple, birch, oak, mahogany, walnut or gumwood. The total difference in cost for panels for an entire living room would be but a few dollars. Stock panel cost is generally far less than the cost of panels laid especially for an architectural interior, where the various sheets and units are to be kept in perfect order. Even then, luxurious walls of fine hardwoods are relatively inexpensive for maintenance is extremely low compared with most alternate materials. In a few years this low-maintenance, work-free woodwork actually costs *less* than other types of walls.

Of greatest importance, however, is the pride, satisfaction and even inspiration one gets from surroundings, such as architectural woodwork and furniture, made of fine hardwoods.

Burdett Green
Executive Vice President
Fine Hardwoods Association
Chicago 11, Illinois

DEFINITION OF TERMS USED

"*Availability*" is expressed in the following terms:

1. *Rare:* can be had from one or more firms, but in very limited amounts and often limited sizes.
2. *Scarce:* Usually 50,000 to 100,000 feet of veneers are carried in stock. Suitable for decorative areas but not for entire areas or large cuttings of production furniture.
3. *Plentiful:* From 100,000 to one million feet in inventory.
4. *Abundant:* Over one million feet on hand or readily available upon order. In the most popular species nearer 100 million feet of veneers are available. However, inventory is made up of several figure types. In this "abundant" group, not only veneers are available but usually plywood in stock panels.

"*Price*" is expressed in the following terms:

1. *Costly or expensive:* 15¢ to 35¢ per foot for veneers. Over 50¢ per foot for lumber.
2. *Moderate:* 6¢ to 15¢ per foot.
3. *Inexpensive:* 3¢ to 6¢ per foot.
4. *Cheap or low priced:* 1½¢ to 3¢ per foot for veneers.

(All prices refer to manufacturers' selling prices, usually in carload or truck load quantities.)

PHOTOGRAPHIC PLATES AND NUMBERS

Practically all photos in this book are to scale. The piece of wood pictured is usually from 30″ to 36″ long on those plates that are 7½″ long. Where the plates are only 3¾″ high, they represent an area 16″ to 18″ of actual wood. Although we have sacrificed the detail one gets from close-up photos, it is more important that the user know the range of figure or pattern, color and other characteristics that often do not appear in a *single* large sheet. It must be remembered that one of the most appealing qualities of fine hardwoods (a product of nature rather than machinery) is the variety and individuality of each piece. Designers do well to take advantage of these qualities rather than strive for extreme uniformity for the latter practice rapidly reduces the choice or availability.

We have intentionally omitted details and definitions of methods of cutting, viz: sliced or flat cut, quartered, rotary, sawn, etc. It is felt that the results are of most concern to the specifier. The photographs show each wood in its most common pattern. A few offer a great variety. In specifying, be more specific than just naming the species, e.g.—"Mahogany, flat cut, figured," which, as will be noted from the photographs, differs greatly from "Mahogany, quartered." Similarly, the matching greatly influences the final results as will be shown later.

Specifiers who customarily refer to plate numbers when specifying woods such as mahogany and walnut will note that the same plate numbers have been used in this book as appear in publications already in use on those two species.

ABACHI — See Ayous

Abiache — See Opepe

Aboudikrou *(Entandrophragma spp.)* — See Sapele

Acacia *(Acacia spp.)* —
Source: Many species of Acacia are grown in America, Europe and India; most are not commercially important. In the U. S. "false acacia" or "locust tree" *(Robinia pseudoacacia,* Linn.) is occasionally produced as veneer. *Color:* Greenish-brown heartwood. *Availability:* Rare as veneer; also lumber. *Price Range:* Moderate.

ACACIA BURL — See Myrtle Burl

Acapu — See Sucupira

Accra *(Entandrophragma, spp.)* —
Source: African Gold Coast, named from port. *Color:* Rich, dark red. *Pattern:* Rather broad stripes. *Availability:* Veneers — rare. *Price Range:* Inexpensive.

AFARA — See Limba

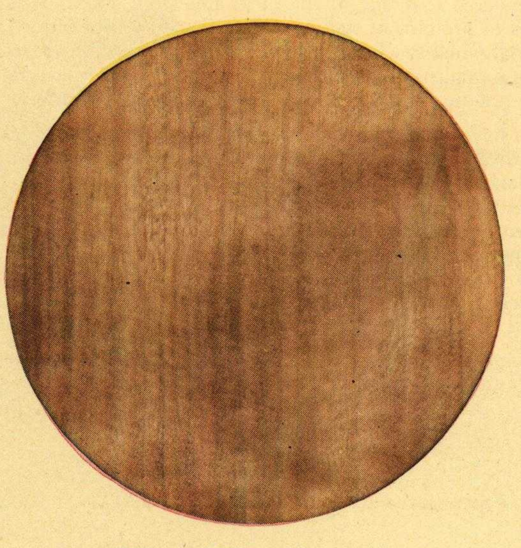
AFARA, BLACK — See Ireme

Agba *(Gossweilerodendron balsamiferum,* Harms.) — Achi, Moboron, Pink Mahogany
Source: Nigeria. *Color:* Creamy white to pale cedar-brown. *Pattern:* Similar to Mahogany but less distinct and varied. *Characteristics:* Somewhat gummy and slight tendency to check, otherwise like African Mahogany. *Availability:* As veneer — rare; as lumber — scarce. *Price Range:* Inexpensive.

Akle *(Albizzia Acle)* — Acle, Laurak
Source: Philippines. *Color:* Sapwood — buff; heartwood — dark brown. *Pattern:* Somewhat cross-grained and occasionally wavy, with a distinct, irregular "ribbon." *Characteristics:* Fine to coarse texture; works easily; comparatively heavy and hard. *Availability:* Lumber — rare.

AKO — See Chen Chen

AKUME — See Bubinga



101 — ASPEN (close up)

ALBARCO *(Cariniana, spp.)* — Abarco, Cedro Macho, Jequitiba, and incorrectly, Brazilian or Colombian Mahogany
Source: South America (Brazil and Columbia). *Color:* Light brown sapwood; yellowish to pinkish or reddish brown heartwood. *Pattern:* Grain straight or striped. *Characteristics:* Close, dense texture; moderately heavy; very hard; difficult to saw. *Uses:* Furniture; interior construction. *Availability:* Veneer (quartered) — scarce. *Price Range:* Medium.

Alder, Red *(Alnus rubra,* Bong.) — Alder, Western Alder
Source: Pacific Coast (California and north). *Color:* Pale pinkish-brown to almost white. *Pattern:* Not distinct. *Characteristics:* Good working properties; strength between Red Gum and Yellow Poplar. *Uses:* Unexposed structural parts for furniture; core stock. *Availability:* Scarce as veneers; plentiful as lumber. *Price Range:* Low.

ALLACEDE *(Wallaceodendron Celebicum)* Banuyo
Source: Philippines. *Color:* Light brown to brown. *Pattern:* Rather prominent. *Characteristics:* Coarse grained. *Availability:* Rare in the United States. *Price Range:* Low.

ALMON *(Shorea almon,* Scheff) — Often sold with or as White Lauan
Source: Philippine Islands. *Color:* Light cream or straw. *Pattern:* Quartered or rotary figure. *Characteristics:* Light; works well although stringy; finishes well; coarse textured; cross grained; moderately hard. *Availability:* As veneer (quartered and rotary) — plentiful; as lumber — available. *Price Range:* Inexpensive.

Almond *(Prunus communis,* Fritch) —
Source: Europe (Mediterranean). *Color:* A dull reddish-brown fine grained fruitwood. *Pattern:* Rather indistinct, like Pearwood. *Availability:* Rare. *Price Range:* Expensive.

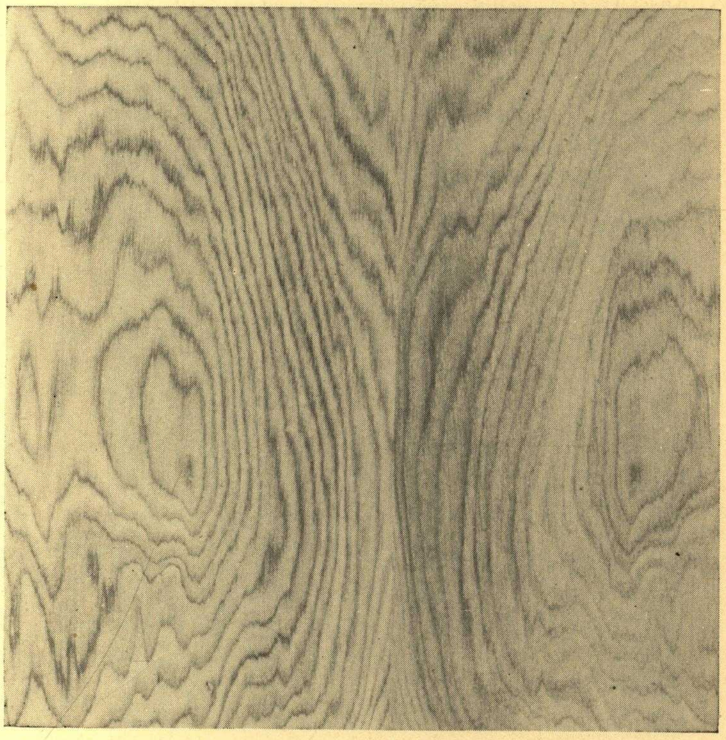
ALPINE BURL — See Birch, European

AMARANTH *(Peltogyne paniculata,* Benth.) — Amarante, Bois Violet, Morado, Palo Morado, Purpleheart, Violetwood
Source: Mexico, Central and South America, especially Brazil, and British, French and Dutch Guiana. *Color:* Dull brown heartwood turns deep, true purple immediately after cutting; sapwood is light grey with purple streaks. *Pattern:* Mild stripe with mild mottle. *Characteristics:* Even texture; hard and heavy; works excellently. *Uses:* Veneers as overlays and inlays; lumber as art objects; jewelry and silverware handles, etc. *Availability:* Veneer (quartered and sliced) — scarce; lumber — available, mostly small sizes. *Price Range:* Costly.

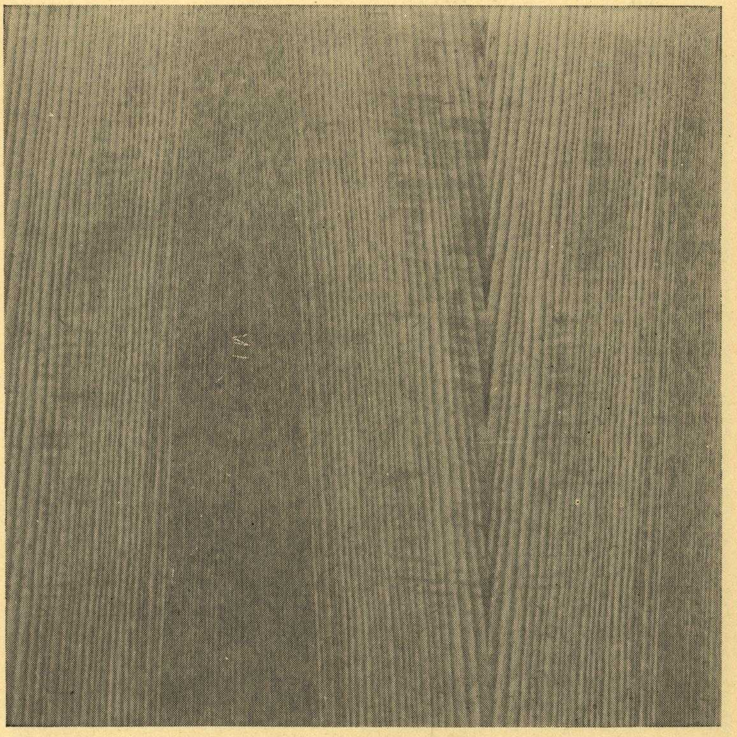
AMARELLO — See Satinwood, Brazilian

Amargoso *(Vatairea, spp.)* — Angelim Amargoso
Source: South America from Brazil to Venezuela. *Color:* Gray sapwood; yellow heartwood that turns orange-brown. *Pattern:* Striped, with rays. *Characteristics:* Coarse; brittle; moderately hard and heavy; grain variable. *Availability:* Rare.

AMBOYNA BURL *(Pterocarpus indicus,* Willd.) — Kiabooca
Source: Borneo, The Moluccas (East Indies). *Color:* Rich brown variegated yellow to red, changes to brown. *Pattern:* Burl — with varied twisted curls and knots. *Availability:* Veneers (half-round) — scarce. *Price Range:* Costly.



102 — ASH, BROWN, ROTARY (2 pc.)



103 — ASH, WHITE, QUARTERED (4 pc.)

Amoteak — See Sucupira

ANDIROBA *(Carapa guianensis,* Aubl.*)* — Carapa, Cedro Macho, Crabwood, Demerara, Mahogany
Source: Northern South America. *Color:* Reddish-brown. *Pattern:* Stripe when quartered; has fine parallel, irregular rays. *Characteristics:* Medium-low density, but firm, strong and hard-textured; grain generally straight, sometimes roey; takes paint and glue well; coarse-textured. *Uses:* Furniture and other cabinetmaking. *Availability:* Veneer (quartered) — scarce. *Price Range:* Moderate.

Apitong *(Dipterocarpus grandiflorus)* — Selected lumber sold under "Bagac" trade name; sometimes sold as a "Philippine Mahogany"
Source: Philippines, Borneo, Malaya. *Color:* Reddish brown to dark red. *Pattern:* Grain slightly crossed; quartered "ribbon" often absent or wide apart. *Characteristics:* Moderate to coarse texture; dull; hard and comparatively heavy; works and finishes well; good gluing and finishing qualities. *Availability:* Mainly as lumber. *Price Range:* Low.

Apple *(Pyrus malus,* L.*)* —
Source: Europe, Asia, United States. *Color:* Light red sapwood and reddish-brown heartwood. *Pattern:* Very little grain pattern. *Characteristics:* Close, even-grained. *Uses:* As veneer in some European furniture; as lumber in saw handles. *Availability:* Veneer (half-round) — rare; lumber — scarce. *Price Range:* Medium.

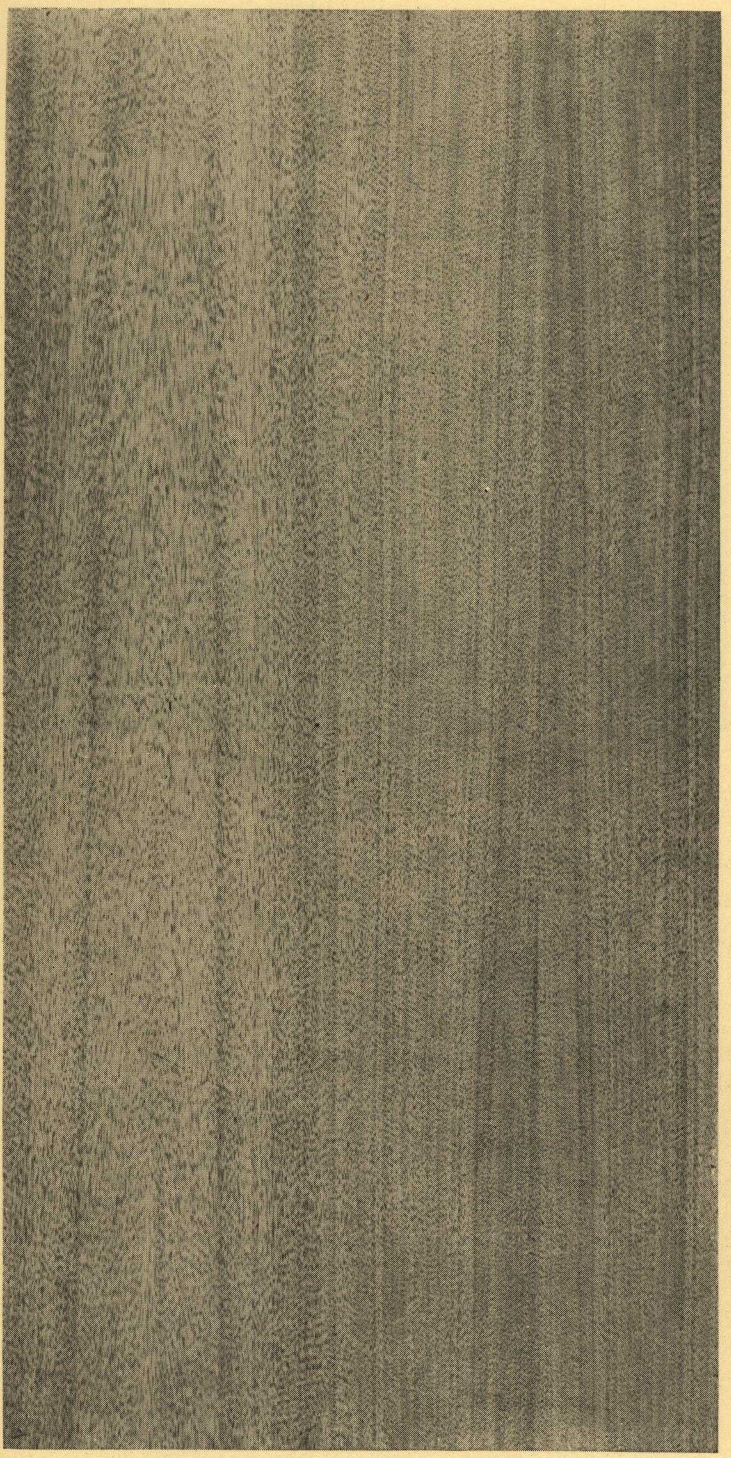
Araca *(Terminalia aff. januarensis,* D.C.*)* —
Source: Brazil. *Color:* Yellow-brown to olive-brown cast with straight, darker brown ribbon stripes. *Pattern:* Usually quartered striped. *Characteristics:* Hard and heavy. *Availability:* Veneer — rare; lumber — rare.

Argento — See Eucalyptus

ASH, AMERICAN — There are many American species of ash, but the three major commercial ones are, in order of importance:

1. **Black Ash** *(Fraxinus nigra,* Marsh*)* — Brown Ash, Hoop Ash, Swamp Ash *(See Plate 102)*
   Source: Principally the Lake States. *Color:* Warm brown heartwood with a thin white or light brown sapwood. *Pattern:* Clusters of eyes occasionally scattered over plain wood. *Characteristics:* Extremely stable; heavy; rather soft; tough. *Availability:* Rare to plentiful. As veneers — largely as rotary; rarely as burls. *Price Range:* Medium.
2. **Green Ash** *(Fraxinus pennsylvanica lanceolata* (Borkh.), Sargent*)* — Swamp Ash, Water Ash and lumber sold as White Ash
   Source: Principally South Atlantic States and Mississippi Valley. *Availability:* Largely for commercial veneers. *Price Range:* Medium.
3. **White Ash** *(Fraxinus americana,* Linn.*)* — *(See Plate 103)*
   Source: Principally Lake States, also New England and Central States. *Color:* Cream to very light brown heartwood with thick, lighter colored sapwood. *Pattern:* Both flat cut and quartered. Moderately open grain. *Characteristics:* Heavy; hard; strong; medium-grained; tough. *Uses:* Interiors, furniture, handles of tools and implements. *Availability:* Veneer (quartered, sliced, half-round, rotary) — plentiful, (butts and figured sliced) — rare; lumber — plentiful. *Price Range:* Medium.

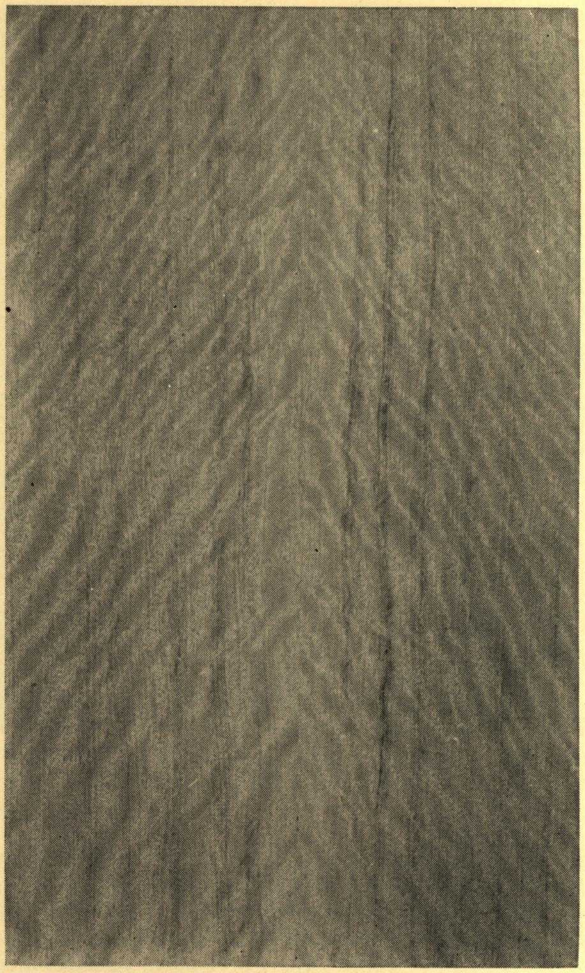
ASH, EUROPEAN *(Fraxinus excelsior,* Linn.*)* — Italian Olive Ash
Source: England, France, Turkey, Hungary. *Color:* Greyish-



104 — AVODIRE, PLAIN QUARTERED (2 pc.)

white color, except for Hungarian Ash which is brownish-white to white. *Pattern:* Longwood — usually rotary cut; Olivewood — grain quite wavy and distinct, sometimes with black streaks and dark grain. *Characteristics:* Moderate weight and hardness; even grain; tough; flexible; easily worked. *Availability:* Veneer (burls and half-round) — scarce. *Price Range:* Costly.

Ash, Mountain — See Eucalyptus



105 — AVODIRE, FIGURED (2 pc.)

ASH, JAPANESE *(Fraxinus sieboldiana,* Blume) — Damo, Tamo *(See Plate 151)*
Source: Japan. *Color:* Brownish-tan through gray to almost white. *Pattern:* Plain to highly varied with swirls, fiddleback mottle and a "peanut shell" figure. Extreme grain character. *Characteristics:* Bends easily; lighter weight than European and American Ash; glues well; finishes well; strong for its weight. *Uses:* Decorative interiors and furniture; inlays and overlays. *Availability:* Veneer (half-round) — scarce. *Price Range:* Costly.

ASPEN *(Populus alba,* Linnaeus) — English Poplar, Silver Poplar, White Poplar *(See Plate 101)*
Source: Europe and Western Asia; transplanted to United States, principally in Middle Atlantic States. *Color:* Pure white to whitish-yellow or grey sapwood similar to Rock Maple with light tan, sometimes brown-streaked, heartwood. *Pattern:* Most widely known for its crotches and swirls. *Characteristics:* Soft; light; easy to work; close-grained; tough texture; natural sheen; tools very smoothly. *Uses:* Furniture, interiors, inlays. *Availability:* Veneer (half-round and sliced) — scarce. Principally produced as crotches. *Price Range:* Moderate to costly.

ASPEN, NORTHERN — See Popple

AVODIRE *(Turraeanthus africana,* Pell.) — Apaya *(See Plates 104-105)*

Source: African Gold Coast, Ivory Coast (Liberia, Cameroons). *Color:* White to creamy gold. *Pattern:* Largely figured with a mottle; crotches and swirls. *Characteristics:* Medium texture; firm, clean grain; usually wavy or irregularly interlocked; lustrous; moderately hard; weighs about the same as African Mahogany. *Uses:* Fixtures; furniture; architectural panels. *Availability:* Veneer plentiful (quartered, sliced, half-round), also crotches and swirls; lumber — available. *Price Range:* Moderate.

AYOUS *(Triplochiton scleroxylon,* K. Schum.*)* — Abachi, African Whitewood, Ewowo, Obeche, Samba
Source: West Africa, principally Nigeria and Gold Coast; also from Ivory Coast and French Cameroons. *Color:* Creamy white to pale yellow. *Pattern:* Faintly striped when quartered. *Characteristics:* Fairly soft; light weight; firm; medium grain, and even in texture. *Availability:* Veneer (quartered, rotary) — plentiful; lumber — available. *Price Range:* Inexpensive.

Bagac — A copyrighted trade name for selected Apitong lumber

Bagtikan *(Parashorea plicata)* — A less common Philippine hardwood, usually imported as lumber

BAKU — See Makori

Balsa *(Ochroma Lagopus)* —
Source: Ecuador, Southern Mexico and Central America. *Color:* Pale white to pinkish white. *Pattern:* Very little, although pores noticeable. *Characteristics:* The lightest of our commercial hardwoods (6 to 9 lbs. cu. ft.); very soft. *Uses:* As veneers — for model airplanes, toys, etc.; as lumber — largely as insulation, floats and life preservers. *Availability:* Plentiful.

Balsamo — See Rosewood, Mexican

Banuyo — See Allacede

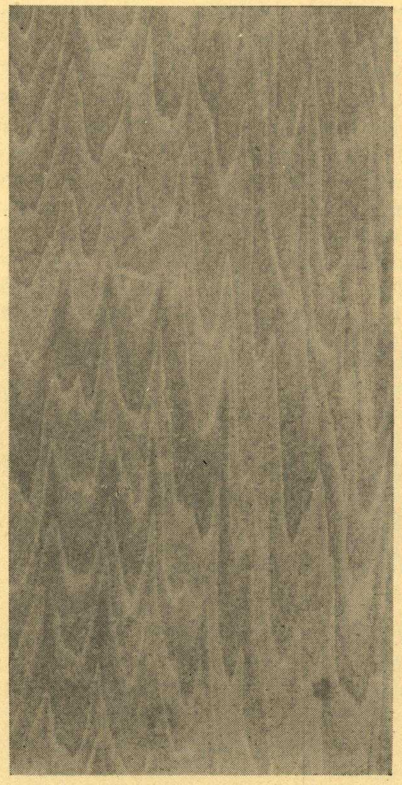
BASSWOOD *(Tilia americana,* L.*)* — Linden, American Whitewood *(See Plate 106)*
Source: Northern United States and Canada. Called Linden in Europe. *Color:* Creamy white. *Pattern:* Fine grain; little or no grain character. *Characteristics:* Very light; fairly soft; glues well. *Uses:* Largely as core stock and cross-banding. *Availability:* Plentiful.

Bay Poplar — See Gum, Tupelo

Beanwood — See Blackbean, Australian

BEECH, AMERICAN *(Fagus grandifolia,* Ehrh.*)* — Sweet Beech *(See Plate 107)*
Source: United States — Lake States and Appalachian region. *Color:* Reddish-brown heartwood; thin white sapwood. *Pattern:* Straight grain. *Characteristics:* Hard; strong; stiff; very close-grained. *Uses:* Lumber — flooring, chairs, shoe lasts, tool handles. *Availability:* Veneer (sliced, rotary) — plentiful; lumber — plentiful. *Price Range:* Inexpensive.

BEECH, EUROPEAN *(Fagus sylvatica,* Linn.*)* — Similar in appearance to American but better seasoning and working properties
Source: Largely from Europe. However, this species is found in many parts of the world; for example, Norway to Spain and in Asia Minor.



106 — BASSWOOD, ROTARY

Beefwood — See Bulletwood

BELLA ROSA *(Anisoptera thurifera,* Blume.*)* — Bayott, Duali, Palosapis
Source: Philippines and British Malaya. *Color:* Pink to yellowish buff. *Pattern:* Stripe and mottle. *Characteristics:* Moderately hard and heavy; coarse texture; grain generally straight, sometimes crossed or wavy. *Availability:* Veneer (quartered) — plentiful; lumber — available. *Price Range:* Medium.

BILINGA *(Sarcocephalus trillesi,* Pierre.*)*
Source: African West Coast. *Color:* Yellowish to tan. *Pattern:* Stripe and semi-figure. *Availability:* Veneer (quartered) — plentiful. *Price Range:* Medium.

Birch, Alaska White *(Betula neoalaskana,* Sarg.*)* — Not yet commercially important as veneers.

BIRCH, DOMESTIC AND CANADIAN — The two commercial species are:

1. **Birch, Sweet** *(Betula lenta,* Linn.*)* — Black Birch, Cherry Birch
   Source: Mainly produced in Adirondack and the eastern Appalachian areas, although it occurs as far south as northern part of Gulf States. *Color:* Brown tinged with red, with thin, light brown or yellow sapwood. *Pattern:* Mostly rotary as well as sliced; grain distinct but not prominent. *Characteristics:* Heavy; very strong and hard; close-grained. *Uses:* All cabinetwork where strength and hardness is desired. *Availability:* Abundant as both veneer and lumber. *Price Range:* Medium.
2. **Birch, Yellow** *(Betula alleghaniensis,* formerly *Betula lutea,* Michx. f.*)* — Gray Birch, Silver Birch, Swamp Birch

Source: Canada and the Lake States and New England to North Carolina in the United States. *Color:* Cream or light brown tinged with red, with thin, nearly white, sapwood. *Pattern:* Both rotary and sliced, plain and often curly or wavy. *Characteristics:* Heavy; very strong; hard; close-grained; even texture. *Uses:* Furniture; interiors; interior and exterior doors; store fixtures; accessories, etc. *Availability:* Veneer and lumber abundant. As veneers the sapwood of rotary birch is sold as "selected white" and the heartwood as "selected red." The greater volume produced is "natural birch" and contains a normal combination of color tones. *(See Plates 108-109)*

BIRCH, EUROPEAN *(Betula alba,* Linn.*)* — Alpine Birch, Finnish Birch, Norway Burl Birch
Source: Norway, Sweden, Finland. *Color:* Tan and cream to off-white. *Pattern:* Rotary-cut, occasionally figured (fiddleback and curly), usually with many small, dark, *burl-like markings. Characteristics:* A distinctive, fine-grained, textured wood. *Availability:* Scarce. *Price Range:* High.

BIRCH, NORWAY BURL (Alpine Burl) — See Birch, European

BLACK BEAN, AUSTRALIAN *(Castanospermum australe,* A. Cunn.*)* — Beanwood
Source: Australia. *Color:* Brown deepening nearly to black with streaks of lighter shades; a blending of chestnut and teak. *Pattern:* Streaked; occasionally highly figured. *Characteristics:* Coarse-textured; resistant to decay; fairly hard and heavy; medium density; moderately strong and stiff; takes a good polish; greasy; works well; high insulating value. *Availability:* Veneer (quartered) — scarce. *Price Range:* Costly.

BLACKWOOD, AFRICAN *(Dalbergia melanoxylon)* — Congowood and Mozambique Ebony
Source: Africa — east coast. *Color:* Purplish to plum-black. *Characteristics:* Close-grained. *Availability:* Scarce.

107 — BEECH, AMERICAN (2 pc.)

BLACKWOOD, TASMANIAN *(Acacia melanoxylon)* — Australian Blackwood
Source: Australia and Tasmania. *Color:* Lustrous, deep, rich, reddish-brown; golden brown; varicolored. *Pattern:* Straight-grained, sometimes interlocked, often showing figure and mottle. *Characteristics:* Close-grained but with conspicuous pores; polishes easily; light to moderately heavy; soft and easily worked; bends exceptionally well. In fact, one of the finest cabinetwoods from Australia and Tasmania. *Availability:* Veneers and lumber — scarce. *Price Range:* High.

BLANCO — See Prima Vera

Boise De Rose — See Tulipwood

BOIS VIOLET — See Amaranth

BOSSE *(Guarea cedrata,* Pellegr., *Guarea thompsoni,* Sp. et Hutch.*)* — African Cedar, Cedar Mahogany, Cedron, Obobo
Source: Gold Coast, Nigeria and Ivory Coast. *Color:* Pink to a light mahogany color. *Pattern:* Stripe and mottle, fine-grained. *Characteristics:* When cutting, a strong cedar-like scent results. *Availability:* Veneers (quartered) — scarce. *Price Range:* Medium.

Box Elder *(Acer negundo,* L.*)* — Ash-leaved Maple
Source: From California and Rocky Mountain States into Eastern United States and Canada. *Color:* Heartwood, unattractive yellowish-bronze, merging rather gradually into the greenish-yellow sapwood; sometimes coral-red streaks due to presence of soluble pigment. *Pattern:* Close-grained. *Characteristics:* Light, soft and not strong. *Availability:* Rare. *Price Range:* Cheap.

Boxwood, Indian *(Buxus sempervivens,* Linn.*)*
Source: Europe and Asia; grown ornamentally in the United States. *Color:* Whitish-yellow. *Pattern:* Very indistinct. *Characteristics:* Hard with close grain. Small sizes only are available. *Uses:* Fine rulers and inlays. *Availability:* Rare. *Price Range:* Very high.

Boxwood, West Indian *(Casearia praecox,* Gris.*)* — Batoa, Maracaibo Boxwood, Zapatero
Source: West Indies, Venezuela, Colombia. *Color:* Yellowish-white and rather bright. *Pattern:* Fine, close and parallel medullary rays, but wavy and ribbed. *Characteristics:* Close, firm and smooth grain. *Uses:* Inlay work, banding in cabinets, marquetry, handles, mathematical instruments. *Availability:* Rare. *Price Range:* High.

Brazil Nut *(Bertholletia excelsa,* H.B.K.*)* — Castanheira
Source: Brazil. *Availability:* Very little imported as or for lumber and veneers.

BUBINGA *(Guibourtia demeusii)* — African Rosewood, Akume, Kewazinga *(See Plate 110)*
Source: West Africa. *Color:* Red with streaks or lines of dark purple. *Pattern:* Stripe and heavy mottle in quartered, sliced and half-round. *Characteristics:* Hard and heavy, with conspicuous pores. *Uses:* General cabinetry. *Availability:* Veneers — plentiful as both longwood and crotches and swirls; lumber — available.

Buckeye *(Aesculus glabra,* Willd.*)* — Horse Chestnut, Ohio Buckeye

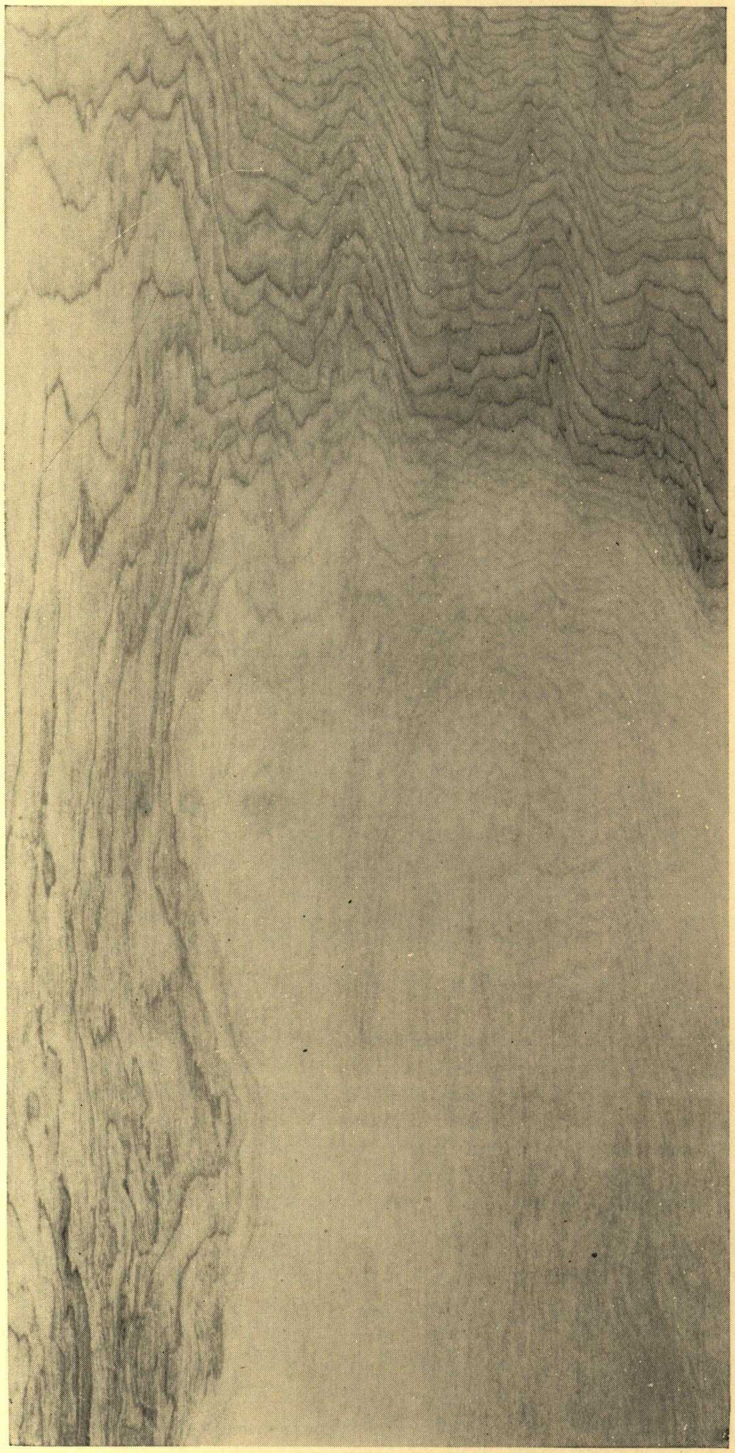
Source: Eastern United States. *Color:* Nearly white. *Pattern:* Often blemished by dark lines (stain). *Characteristics:* Soft; close-grained; not strong. *Availability:* Veneers — scarce; lumber — available (occasionally). *Price Range:* Inexpensive.

Bulletwood *(Mimusops globosa,* Gaertn. Also, *Manilkara, spp.)* — Balata, Beefwood, Red Lancewood, South American "Mahogany," Wild Dilly

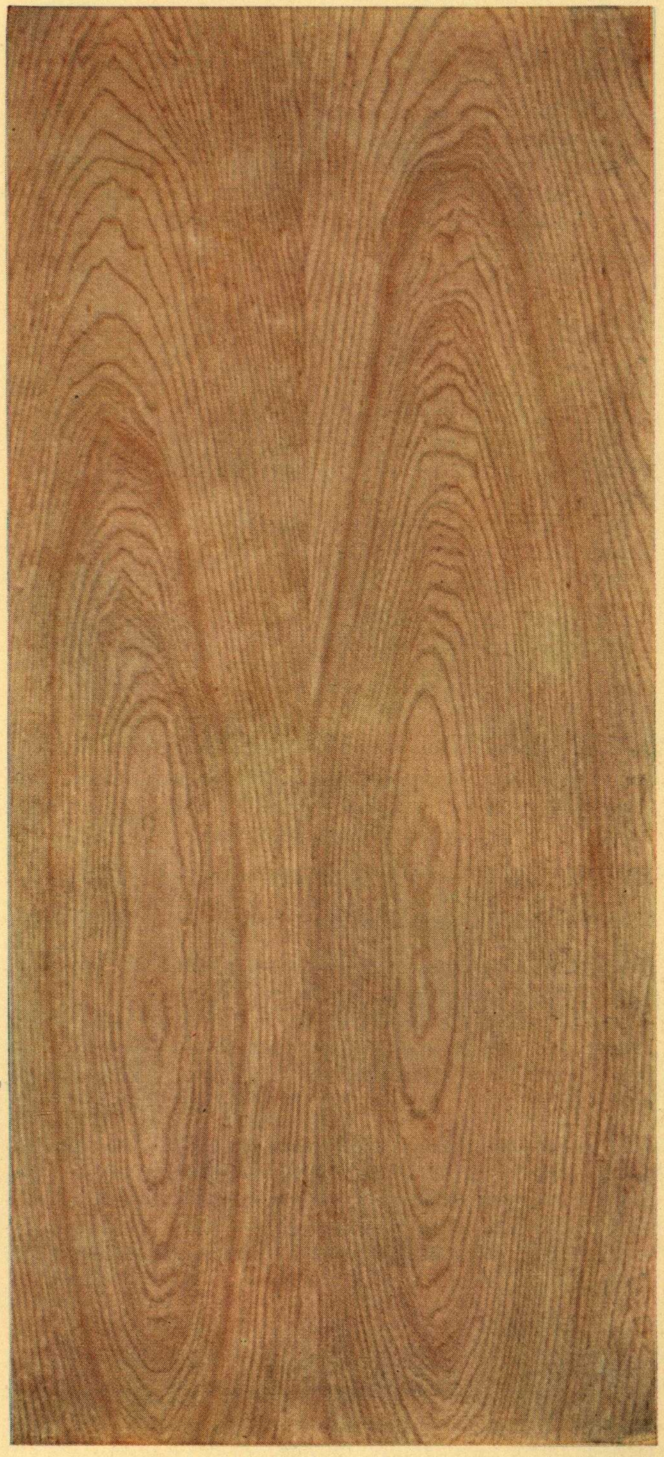
Source: Brazil, Guianas, and Venezuela. *Color:* Reddish-brown with purple cast. *Pattern:* Numerous light-colored concentric lines, like the similar but finer invisible rays; straight grain. *Characteristics:* Hard, heavy and one of the strongest woods known. *Availability:* Lumber — rare as lumber only. *Price Range:* Expensive.

BUTTERNUT *(Juglans cinerea)* — White Walnut *(See Plate 111)*

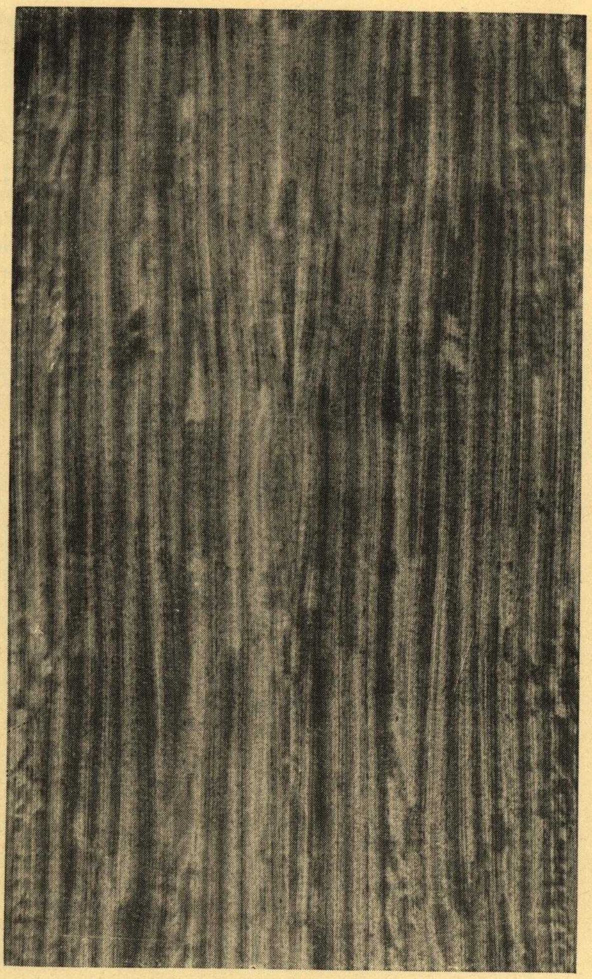
Source: North Central States and Southern Canada. *Color:* Pale brown. *Pattern:* Satiny wood with leafy grain. *Characteristics:* Soft to medium textured, with occasional dark



108 — BIRCH, ROTARY, NATURAL



109 — BIRCH, WHITE, SLICED (2 pc.)



110 — BUBINGA (2 pc.)

spots or streaks. *Uses:* Interior finish of houses; furniture. *Availability:* Veneer (sliced) — and lumber — somewhat more than "rare." *Price Range:* Medium.

BUTTONWOOD — See Sycamore, American

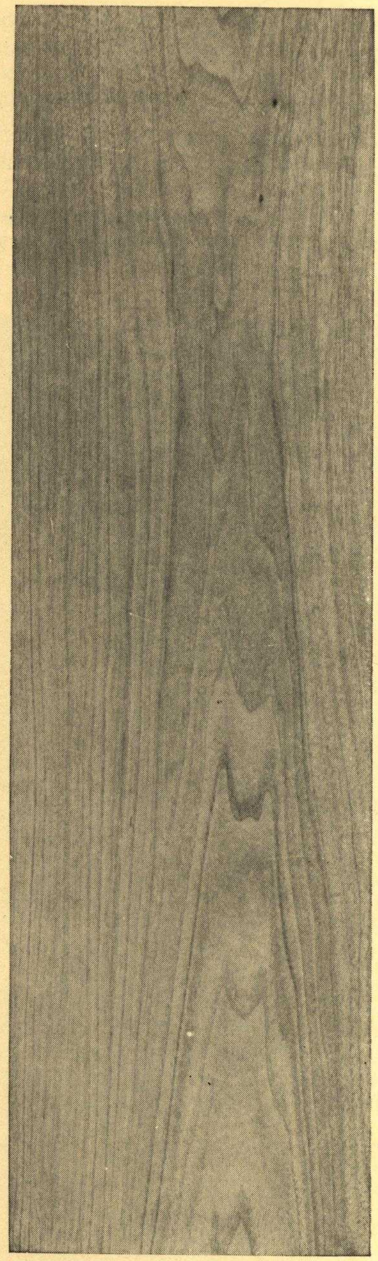
CALICO ASH — See Elm, American

CANALETTA *(Cordia geraseanthus,* Linn.*)* — Canalete, Cyp, Cypre, Princewood, Solera, and Ziricote
Source: Northern South America. *Color:* Purplish to dark brown. *Pattern:* Stripes — varicolors. *Characteristics:* Very hard. *Uses:* Tool and knife handles; turnery and walking sticks. *Availability:* Veneer — scarce. *Price Range:* Costly.

CAPOMO *(Brosimum Alicastrum,* Sw.*)* — Breadnut, Capome, Laredo, Lerado, Ogechi, Ojoche and Ramon
Source: Central America. *Color:* Yellowish sapwood; reddish heartwood. *Pattern:* Cross ripple, lustrous. *Characteristics:* Hard. *Availability:* Veneer (quartered) — plentiful. *Price Range:* Medium.

CARPATHIAN ELM — See Elm, Carpathian Burl

Catalpa *(Catalpa speciosa,* Warder*)*
Source: South Central United States. *Color:* Brown. *Characteristics:* Light; fairly soft; not strong; somewhat brittle; close-grained. *Availability:* Scarce. *Price Range:* Low to medium.

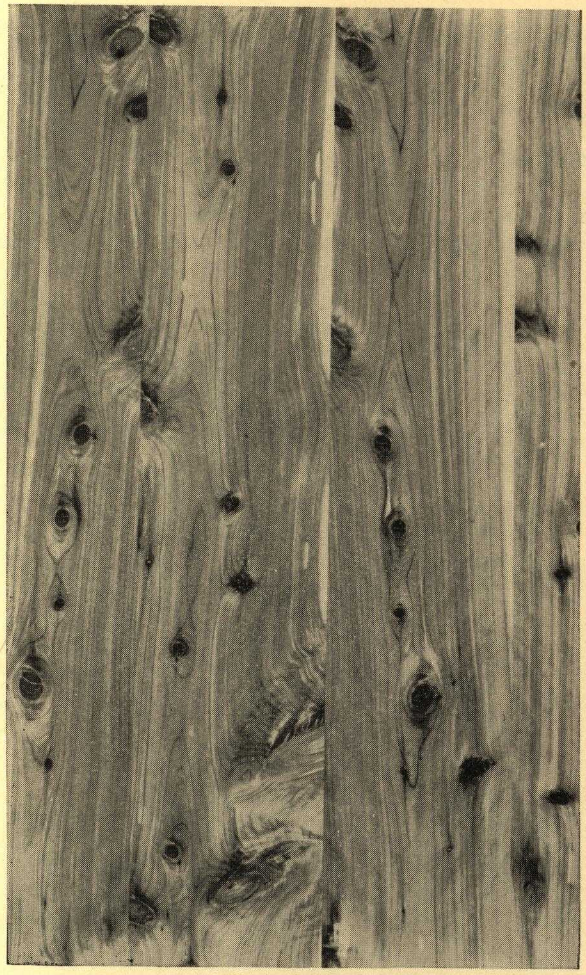


111 — BUTTERNUT

CATIVO *(Prioria Copaifera,* Gris.*)* — Florisa and Tabasara
Source: Tropical America, including West Indies. *Color:* Heartwood — brown; thick sapwood — dingy white color. *Pattern:* Dull in appearance, straight-grained. *Characteristics:* Medium textured and rather stringy; contains considerable deep brown gum. *Uses:* Cross banding, center ply, etc. *Availability:* Plentiful as rotary cut veneers. *Price Range:* Low.

CEDAR, AFRICAN — See Bosse

CEDAR, AROMATIC RED *(Juniperus virginiana,* Linn.*)* — Eastern Red Cedar, Juniper, Pencil Cedar, Red Cedar, Southern Red Cedar, Tennessee Red Cedar *(See Plate 112)*
Source: Occurs over most of eastern two-thirds of United States. Largest production in Southeastern and South Central



112 — CEDAR, AROMATIC (4 pc.)

States. *Color:* Light red, streaks of light. *Pattern:* Knotty with other natural characteristics always present. *Characteristics:* Although brittle, it is regarded as a fine wood to work. *Uses:* Cedar storage chests, lining of closets, and chests, pails, small articles of woodenware, lead pencils. *Availability:* Veneer (sawn or sliced) — plentiful; lumber plentiful. *Price Range:* Medium.

CEDAR, BRAZILIAN — See Cedar, Spanish

CEDAR, CENTRAL AMERICAN — See Cedar, Spanish

CEDAR, RED — See Cedar, Aromatic Red

CEDAR, SPANISH *(Cedrela mexicana,* Roem.*)* — Brazilian Cedar, Cedrela, Cedro, Honduras Cedar
Source: Every country south of the United States except Chile, in commercial size according to record. *Color:* Light red. *Pattern:* Straight grain; wavy; curly and mottled grain. *Characteristics:* Soft. *Uses:* Cigar boxes; lead pencils; boat building and pattern work; furniture; doors. Most widely used timber in Tropical America. *Availability:* Veneer (sliced, rotary) — plentiful; lumber — available. *Price Range:* Medium.

CEDAR, SOUTHERN RED — See Cedar, Aromatic Red

CEDAR, TENNESSEE RED — See Cedar, Aromatic Red

113 — CHERRY, FIGURED

CEDRELA — See Cedar, Spanish

CEDRO — See Cedar, Spanish

CEDRO MACHO — See Andiroba

Ceiba *(Ceiba pentandra,* Gaertn.*)* — Kapok, Odoum, Silk Cotton Tree
Source: West Africa, Mexico. *Color:* Reddish-gray, sometimes with yellowish streaks, or greyish. *Pattern:* Cross-grained; dull. *Characteristics:* Very absorbent; coarse textured; soft when green; brittle when dry. *Uses:* Stools; simple household furniture; doors; tables; plates; trays and boxes. *Availability:* Plentiful. *Price Range:* Low.

Celtis *(Celtis soyauxii,* Engl.*)* — Ita, Itako, Ohia (See also Hackberry)
Source: West Africa. *Color:* Whitish to pale yellow. *Pattern:* Grain interlocked, which produces stripe on quarter-cut surfaces. *Characteristics:* Hard; fairly heavy; normally works well with some picking up in planing. *Availability:* Scarce. *Price Range:* Medium.

Cercocarpus *(Cercocarpus ledifolius,* Nutt.*)* — Mountain Mahogany

Source: Mountain ranges of the interior region of the United States, from eastern Washington and Oregon, to lower Green and Snake River valleys. *Color:* Bright, clear red or rich, dark brown. *Uses:* Novelties; canes. *Availability:* Rare.

Chechem *(Metopium browni,* Urban*)* — Black Poison
Source: British Honduras and South America. *Color:* Brownish-green wood, between walnut and ebony. Light grey sapwood. *Pattern:* Layers marked by dark lines. *Characteristics:* Pores exceedingly small, not very numerous; hard, close texture. *Availability:* Scarce.

CHEN CHEN *(Antiaris africana)* — Ako, Quen Quen
Source: African Gold Coast to Cameroons. *Color:* White to yellow gray. *Pattern:* Stripe. *Characteristics:* Soft; works well; light in weight. *Availability:* Veneer (quartered) — plentiful; lumber — available. *Price Range:* Low to medium.

CHERRY, AFRICAN — See Makori

CHERRY, BLACK *(Prunus serotina,* Ehrh.*)* — Rum Cherry, Wild Black Cherry *(See Plates 113-114)*
Source: Maine to Dakotas and Appalachians; production largely Pennsylvania to West Virginia. *Color:* Light reddish-brown. *Pattern:* Straight-grained; satiny; some figured. Small gum pockets are normal markings. *Characteristics:* Light; strong; rather hard; fine-grained. *Uses:* Fine furniture; woodwork and engravers blocks. *Availability:* Veneer (quartered, sliced, half-round) — plentiful; lumber — plentiful. *Price Range:* Medium.

Cherry, Choke *(Prunus virginiana,* L.*)*
Source: Newfoundland, through Labrador to shores of Hudson's Bay, southward to valley of Potomac River and Northern Kentucky; Dakotas, Kansas, Oklahoma. *Color:* Light brown. *Pattern:* Similar to above. *Characteristics:* Heavy; hard; close-grained; not strong. *Availability:* Scarce.

Cherry, French *(Prunus cerasus,* Linn.*)*
Source: France, England. *Color:* Heartwood is yellowish-brown. *Pattern:* Similar to American Cherry. *Uses:* Fine cabinetry. *Availability:* Rare.

Cherry, Wild *(Prunus avium,* Linn.*)*
Source: Great Britain, Europe, Asia Minor. *Color:* When first cut is light red or pink, darkening on exposure to deeper tint. *Pattern:* Medullary rays are strongly marked. *Characteristics:* Pores fine and numerous. *Availability:* Rare. *Price Range:* Medium to high.

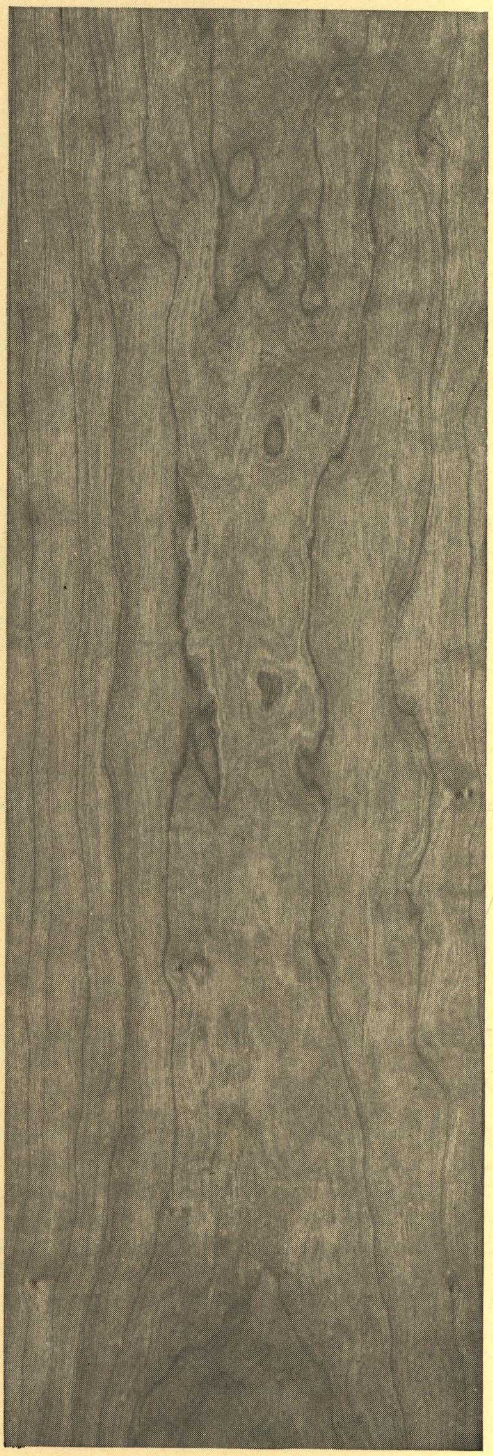
CHESTNUT *(Castanea dentata* (Marsh) Borkh.*)* —
Source: Formerly ranged over Eastern United States. *Color:* Reddish brown with lighter colored sapwood. *Pattern:* Low to medium lustre; straight grain. *Characteristics:* Coarse texture; easy to work; highly durable. *Uses:* Character-marked paneling and core stock. *Availability:* Only as "wormy chestnut;" mostly as lumber; supply largely depleted by "Chestnut blight." *Price Range:* Medium.

Chittam Wood *(Cotinus americana,* Nutt.*)* — Biblical Chittam Wood, Smoke Tree
Source: Eastern United States; rarely Europe. *Color:* Bright, clear, rich orange color; thin, nearly white, sapwood. *Availability:* Rare.

CINNAMON *(Cinnamomum zeylanicum,* Breyn.*)*
Source: Ceylon. *Color:* Light tan or straw to dark brown; variegated. *Characteristics:* Fine grain. *Availability:* Rare. *Price Range:* Moderate.

CLARO WALNUT — See Walnut, California

COCOBOLO *(Dalbergia retusa,* Hemsley; *Dalbergia hypoleuca,* Pittier; *Dalbergia granadillo,* Pittier*)* — Nambar
Source: Central America. *Color:* Yellowish brown. *Pattern:* Straight to interwoven grain. *Characteristics:* Very hard.



114 — CHERRY

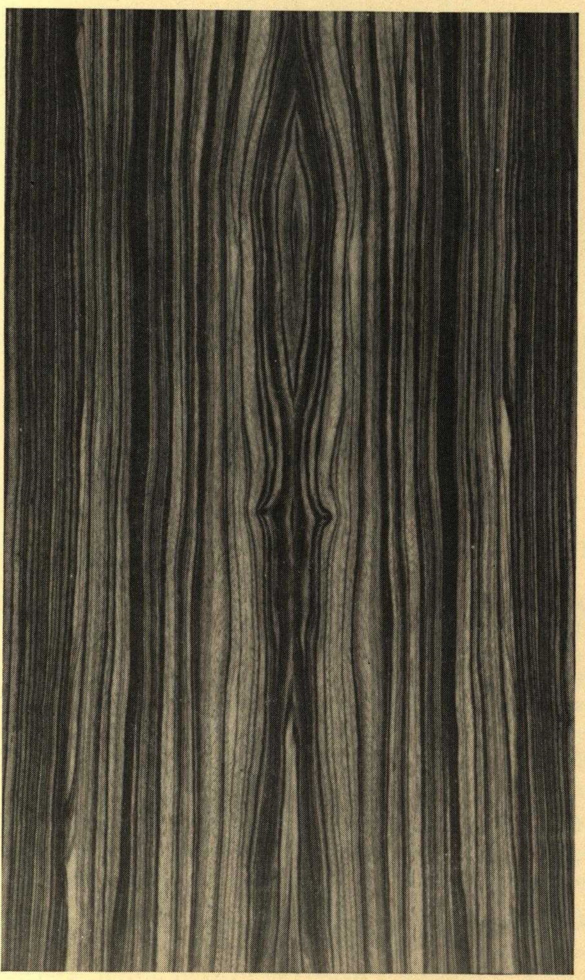
Uses: Modern furniture; fancy cabinet work. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.

Coffee Tree *(Gymnocladus dioica,* C. Koch*)* —
Source: Kentucky and Central South. *Color:* Rich, light brown tinged with red, with thin lighter colored sapwood. *Pattern:* Strong annual ring markings. *Characteristics:* Heavy although not hard; strong; coarse-grained. *Availability:* Very scarce. *Price Range:* Medium.

CORAIL — See Padauk, African

CORISSA — A trade name
Source: South America. *Color:* Cream to yellowish. *Pattern:* Both quartered and flat-cut veneers. *Characteristics:* It is medium to soft in texture and comes in rather large sizes. *Availability:* Scarce. *Price Range:* Low.

COTTONWOOD *(Populus deltoides,* Marshall*)* — Eastern Cottonwood, Carolina Poplar
Source: United States. *Color:* Creamy-white with dark markings. *Pattern:* Slightly lustrous but not very distinct. *Characteristics:* Numerous pores which are exceedingly small; light weight; weak; works fairly well although stringy and does not split. *Uses:* Box shook; woodenware; luggage interiors. *Availability:* Veneer — plentiful. *Price Range:* Inexpensive.



115 — EBONY, MACASSAR (2 pc.)

Cucumber Tree *(Magnolia macrophylla,* Michx. f.*)* — Magnolia
Source: Eastern states, temperate countries of Europe, Louisiana. *Color:* Light greenish-brown, with thick light yellow sapwood. *Pattern:* Not very distinct. *Characteristics:* Moderately hard; close-grained; not strong. *Uses:* Same as Yellow Poplar. *Availability:* Plentiful. *Price Range:* Inexpensive.

CYPRESS, AMERICAN BALD *(Taxodium distichum,* Rich.*)* — Black, Red, Southern, White and Yellow Cypress
Source: Southeastern Coast of the United States. *Color:* Yellowish-red, often nearly salmon-colored. *Pattern:* Very distinct leafy grain. *Characteristics:* Annual rings combine soft, open-meshed spring wood, and hard, closer-grained summer wood. Moderately strong and light; very durable. *Uses:* Normally for its great durability (against decay); also for architectural interiors, especially "Pecky Cypress for that 'textured look'." *Availability:* Scarce as veneers; plentiful as lumber. *Price Range:* Medium.

CYPRESS, CROTCH — See Faux Satine Crotch

DAO — See Paldao

Degame — See Lemonwood

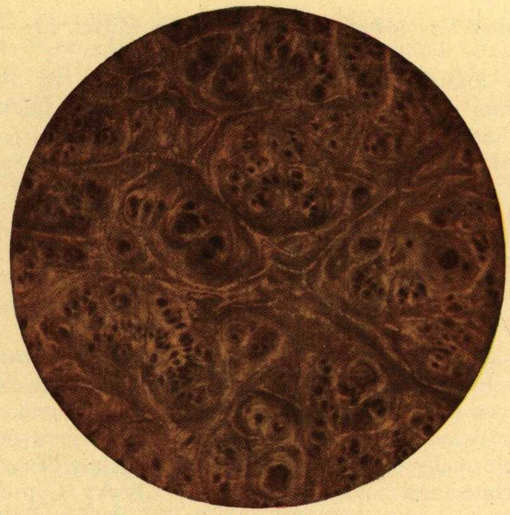
DOGWOOD *(Cornus florida,* Linn.*)* — Flowering Dogwood
Source: British Colombia, Vancouver Island, North and Central America. *Color:* Yellowish-brown; darker-colored heart. *Pattern:* Bright, rather lustrous surface; prominent medullary rays. *Characteristics:* Close, fine, hard, compact, interlocking grain capable of very smooth surface when worked. *Uses:* Shuttle blocks and golf club heads; wood engraving; charcoal for gunpowder. *Availability:* As lumber — rare. *Price Range:* High.

EBONY, BLACK *(Diospyros tomentosa,* Roxb.; also *Diospyros ebenum* and *Diospyros assimilis)*
Source: Northern India, Himalaya. *Color:* Black. *Pattern:* Rays are very fine, joined at right angles by similar fine light-colored bars, forming a minute pattern. *Characteristics:* Exceedingly minute pores somewhat scarce; hard; dense and of great weight. *Uses:* Piano keys; inlays and marquetry; finger-boards of violins; handles. *Availability:* Scarce as veneer or lumber. *Price Range:* High.

EBONY *(Diospyros ebenum,* Koenig*)* — This true ebony from Ceylon is most dense and dark, but very rare.

EBONY, GABOON *(Diospyros dendo,* Welw.*)* — Black Ebony, Calabar, Gabun, Lagos
Source: Africa. *Color:* Very deep black. *Pattern:* Very indistinct grain. *Characteristics:* Hard. *Uses:* Turnery; inlaid work; fancy goods; tool handles. *Availability:* Rare. *Price Range:* Costly.

EBONY, MACASSAR *(Diospyros melanoxylon,* Roxh.*)* — Marblewood *(See Plate 115)*
Source: East Indies. *Color:* Dark brown to black; large proportion of the logs are streaked with yellow or yellowish-brown. *Pattern:* Rays are fine and very indistinct; the grain markings largely from the brown streaks on black background. *Characteristics:* Dense; close grain. *Uses:* Ornamental work, such as brush backs and handles. *Availability:*



116 — ELM, CARPATHIAN BURL (close up)

Veneer (quartered, sliced) — scarce; lumber — rare. *Price Range:* Costly.

EBONY, NIGERIAN *(Diospyros crassiflora)*

EBONY, TROPICAL AMERICAN *(Brya ebenus,* D.C.*)* — Cocus, Granadillo, Green Ebony, Jamaica
Source: West Indies. *Color:* Yellow to rich, dark brown. *Pattern:* Grain straight to finely roey. *Characteristics:* Very hard; heavy; compact; tough; strong; texture very fine; not difficult to work; requires care in seasoning. *Uses:* Handles of table cutlery; small articles of turnery; brush backs and inlay. *Availability:* Scarce as lumber. *Price Range:* High.

Edinam *(Entandrophagma angolense)* — Gedu Nohor, Ipaki, Brown or Jebu Mahogany, Timbi
Source: West Africa. *Color:* Reddish-brown. *Pattern:* Stripe. *Characteristics:* Slightly scented; fairly hard; light. *Uses:* Furniture; interior decoration; fittings in shops, offices and ships. *Availability:* Veneer (quartered) — plentiful; lumber — available. *Price Range:* Medium.

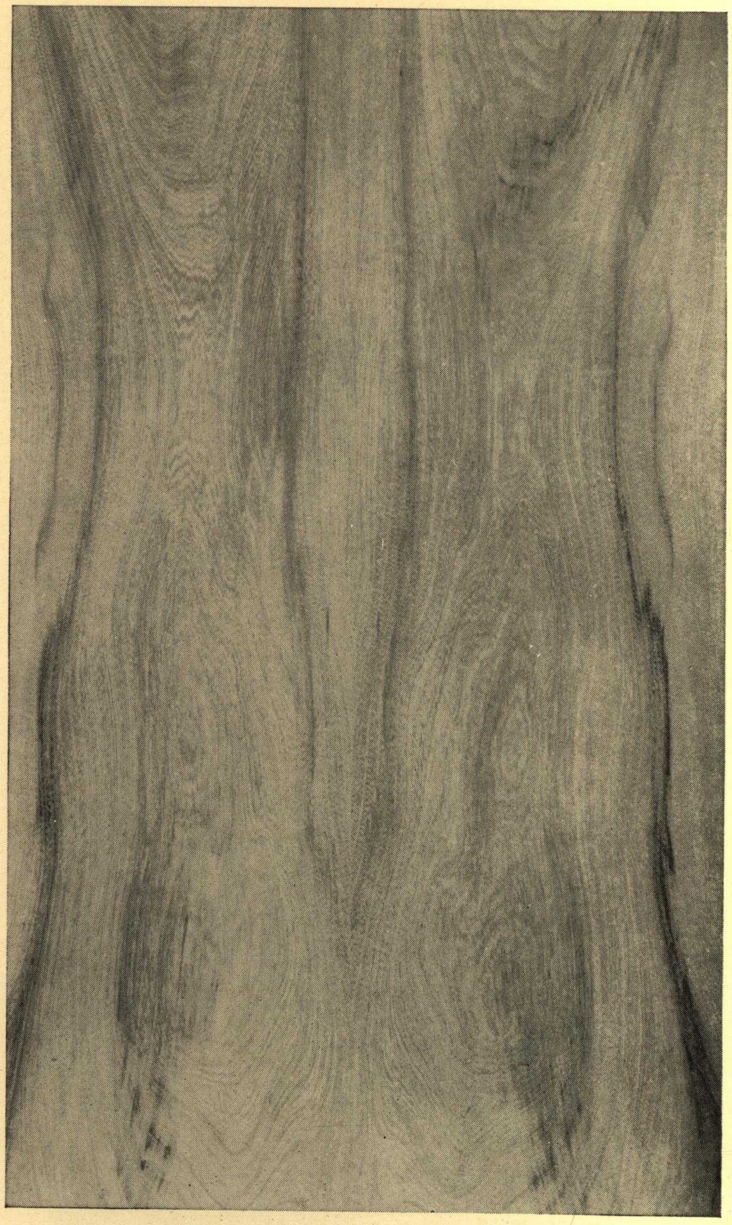
ELM, AMERICAN *(Ulmus americana,* Linn.*)* — Soft Elm, Water Elm, White Elm *(See Plates 117-118)*
Source: United States, east of Rockies. *Color:* Light brownish. *Pattern:* Conspicuous growth pattern like ash. *Characteristics:* Heavy; hard; strong; tough; difficult to split; coarse-grained; bends exceedingly well. *Uses:* Widely used as veneers for containers; some for fine furniture. *Availability:* Veneer (quartered, sliced, rotary) — plentiful; lumber — available. *Price Range:* Medium.

Elm, Rock *(Ulmus racemosa,* Thomas*)*

Elm, Slippery *(Ulmus fulva,* Michx.*)*

ELM, CARPATHIAN BURL *(Ulmus campestris,* Linn.*)* — English Elm *(See Plate 116)*
Source: France, England, Carpathian Mountains. *Color:* Varies from almost brick-red to light tan. *Pattern:* A beautiful medium to fine burl. *Characteristics:* Defects of all kinds in almost every burl. *Uses:* Fine cabinetry — decorative areas. *Availability:* Veneer only — rare. *Price Range:* Costly.

ELM, ENGLISH — See Elm, Carpathian Burl



117 — ELM, AMERICAN, BROWN (2 pc.)

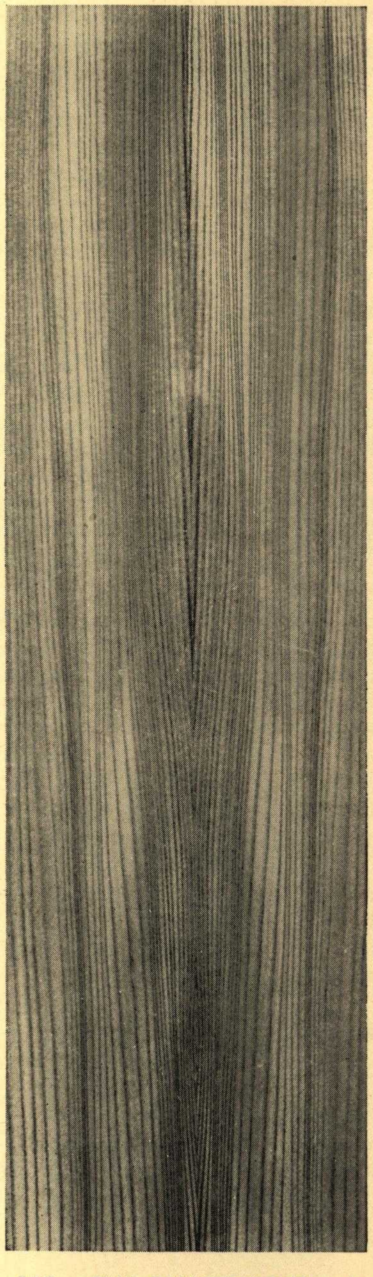
EMERI — See Ireme

EMRI — See Ireme

ESSA — A trade name
Source: Africa. *Color:* Cream to light brown. *Characteristics:* Considerably like Satinwood; very hard in texture. *Availability:* Scarce. *Price Range:* Medium.

EUCALYPTUS — This genus, largely of Australian origin, produces a great variety of woods — wide range of texture, color and behavior.

1. **Ash, Mountain** *(Eucalyptus regnans,* F.v.M.*)* — Argento, Mountain Ash, Tasmanian Oak
   Source: Tasmania. *Color:* Tan to gold brown, sometimes pinkish. *Pattern:* Blistered-ripple fiddleback; straight-



118 — ELM, QUARTERED (2 pc.)

grained. *Characteristics:* Durable and strong; works readily. *Uses:* Bridges; wood paving and other structural uses but suitable for cabinetmaking. *Availability:* Veneer (quartered) — scarce; lumber — scarce in United States. However, this is one of the most abundant species of eastern Victoria and Tasmania. It is probably the largest hardwood in the world and among the tallest trees in the world as some have been recorded authentically in excess of 326′. *Price Range:* Costly.

2. **Gum, Blue** *(Eucalyptus globulus)* — The Eucalyptus growing on the Pacific Coast are very difficult to season and not widely used for veneer or lumber.

EWOWO — See Ayous

119 — GUM, SAPWOOD

FAUX ROSE *(Dalbergia Greveana,* Baill.*)* — French Rosewood, Madagascar Rosewood
Source: Madagascar. *Color:* Pinkish-brown. *Pattern:* Stripe. *Uses:* Furniture and musical instruments. *Availability:* Veneer (quartered, sliced) — rare. *Price Range:* Medium.

FAUX SATINE CROTCH *(Taxodium distichum,* (Linn.) Richard*)* — Cypress Crotch
Source: Southeastern United States. *Color:* Yellowish-brown. *Pattern:* Crotches and swirls. *Characteristics:* Soft; oily;

easily worked. *Uses:* Decorative areas of furniture and architectural interiors. *Availability:* Plentiful to rare. *Price Range:* Moderate to costly.

FRAKE — See Limba

FRAMERIE — See Ireme

GABOON *(Aucoumea klaineana,* Pierre*)* — Angouma, Gaboon Wood, Okoume
Source: African West Coast. *Color:* Reddish-brown. *Pattern:* Stripe (dark); straight-grained. *Characteristics:* Fairly light in weight; fairly strong for its weight. *Uses:* Architectural panels and furniture. *Availability:* Veneer (quartered, sliced, rotary, crotches and swirls) — plentiful. *Price Range:* Inexpensive, except highly figured types.

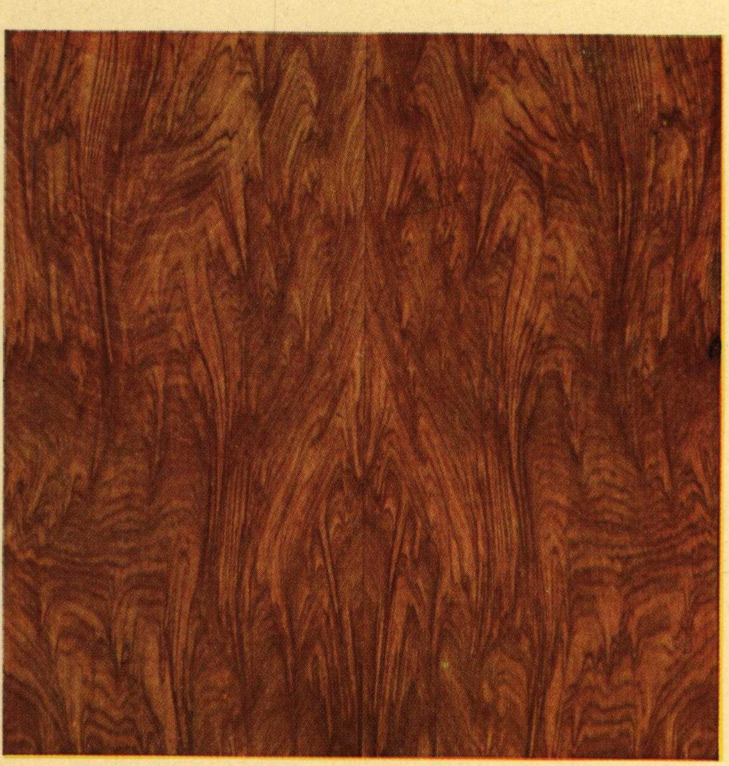
Gedu Nohor — See Edinam

GENIZERO — See Kelobra

CONCALO ALVES *(Astronium franinifolium,* Schott; *Astronium graveolens,* Jacq.*)* — Gateado, Kingwood, Mura, Tigerwood, Zebrawood
Source: Brazil and northern South America. *Color:* Dark brown; pink. *Pattern:* Brown streaks; rays very numerous and exceedingly fine. *Characteristics:* Small pores very regular in position; contrary layers of hard and soft texture; capable of very smooth surface; strong and durable. *Availability:* Veneer (quartered) — scarce. *Price Range:* Costly.

Granadillo — See Ebony, Tropical American

GREENHEART *(Nectandra Rodioei,* Schomb; *Octea Rodioei,* Mez.*)*
Source: British Guiana and West Indies. *Color:* Light olive to nearly black. *Characteristics:* Extreme hardness, weight and strength. *Uses:* Primarily for construction of ships and docks; piling; flooring (locally); fishing rods, etc. *Availability:* As lumber only — scarce. *Price Range:* Costly.



120 — GUM, RED, FIGURED (2 pc.)

GUANACASTLE — See Kelobra

GUAYACAN — See Lignum Vitae

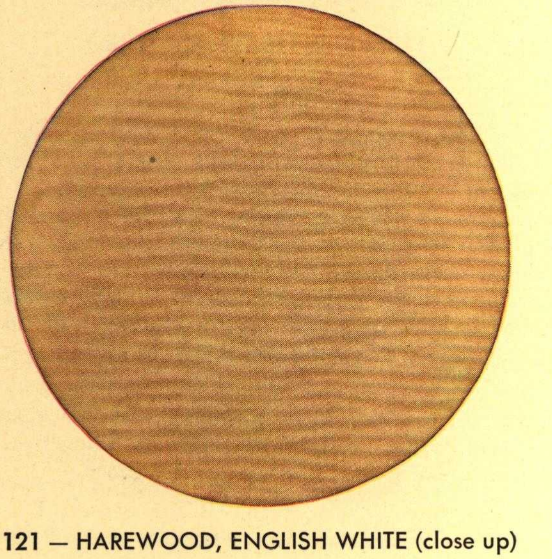
GUM *(Liquidambar styraciflua,* Linn.*)* — Heartwood and sapwood sold separately as:

1. **Gum, Red** (Heartwood) — Hazelwood, Southern Gum, Sweet Gum *(See Plate 120)*
Source: Wide range in United States but commercial production is largely from lower Mississippi Valley. *Color:* Reddish-brown. *Pattern:* Dark streaks. *Characteristics:* Moderately heavy; hard; straight; close-grained; not exceedingly strong. Red Gum or the heartwood is often selected for its attractive figure. *Uses:* Outside and inside finish of houses; cabinetmaking; wooden dishes and fruit boxes. *Availability:* Veneer (sliced, rotary) — plentiful; lumber — available. *Price Range:* Medium.
2. **Gum, Sap** (Sapwood of the same species) *(See Plate 119)*
Source: Same. *Color:* Pinkish white often blued by sap stains. *Pattern:* Plain but not strong; usually watery. *Characteristics:* Same as above except not as durable. *Uses:* Plywood (interiors) and lumber for furniture, T.V. cabinets, etc. Architectural woodwork for paint. The most widely used species for veneers in the U. S. *Availability:* Veneer (rotary) — abundant; lumber — abundant. *Price Range:* Inexpensive.

GUM, BLACK *(Nyssa sylvatica,* Marsh.*)* — Sour Gum, Tupelo Gum
Source: United States from Maine and New York through Central States to Louisiana and Texas.

GUM, BLUE *(Eucalyptus globulus,* Labill*)* — see Eucalyptus

GUM, TUPELO *(Nyssa aquatica,* Linn.*)* — Bay Poplar, Tupelo, Water Tupelo *(See Plate 149)*
Source: Southeastern Virginia through Mississippi Delta

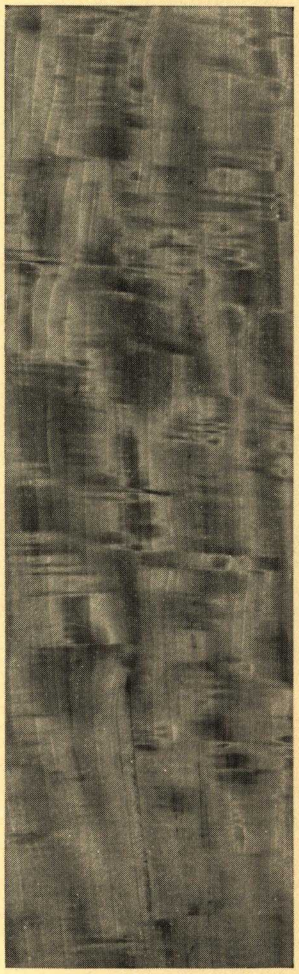


121 — HAREWOOD, ENGLISH WHITE (close up)

region — Southeast Texas northward into southern Illinois. *Color:* Used along with sap gum and yellow-poplar. However, the wood is whiter in color in the sapwood to yellowish or brownish-streaked heartwood. *Pattern:* Rotary cut — rather indistinct. *Characteristics:* The different species of Nyssa are so nearly alike that usually no attempt is made to separate them; texture fine; uniform grain usually interlocking. *Uses:* Mainly as commercial veneers, cross banding, cores and backs. *Availability:* Plentiful. *Price Range:* Low to inexpensive.

Gurjun *(Dipterocarpus turbinatus* and other species*)*
Source: Burma, India, Andaman Islands. *Color:* This brownish-colored wood resembles somewhat Camphorwood. *Characteristics:* Intermediate grain; resists the hardest wear. Aromatic. *Uses:* Has exceptionally fine properties as a flooring material. *Availability:* Rarely used in the United States as either veneer or lumber.

HACKBERRY *(Celtis occidentalis,* Linn.*)* — Sugarberry
Source: New England to Virginia and west through Iowa, Missouri and Kansas. *Color:* Yellowish. *Pattern:* Rather distinct; fine sparkle from small rays when quartered. *Characteristics:* Heavy; moderately hard; not strong; coarse-grained. *Availability:* Veneer (quartered, sliced, half-round, rotary) — plentiful; lumber — available. *Price Range:* Inexpensive to medium.



122 — IREME

HAREWOOD, ENGLISH *(Acer pseudoplatanus,* Linn.*)* — Sycamore *(See Plate 121)*
Source: England. *Color:* Natural white. Called English white before dyeing. Usually dyed silver gray. *Pattern:* Both plain and figured. *Characteristics:* Same as maple — which it is. *Uses:* Marquetry; inlay; paneling. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.

Harewood, San Dominto *(Zanthoxylum spp.)*

HAZELWOOD — See Gum, Red

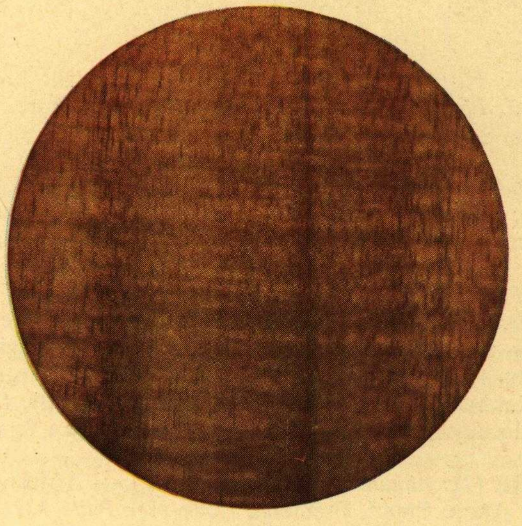
HICKORY *(Carya spp.)* — There are some 16 species and 20 varieties in eastern North America of which the most important commercially is Shagbark Hickory *(Carya ovata)*
Source: From the Northeastern United States to the Southwest into Mexico. *Color:* White to cream with inconspicuous fine brown lines. *Pattern:* Fairly indistinct but pleasing. *Characteristics:* Extremely tough and resilient; quite hard and only moderately heavy. *Uses:* As veneers — skiis and moulded and bent plywood requiring extreme strength. *Availability:* Veneer — scarce; lumber — available. *Price Range:* Medium to high.

HOLLY *(Ilex opaca,* Aiton*)*
Source: United States — Maine to Florida; the lower Mississippi region produces the limited commercial cut. *Color:* Very white, turning brown with age and exposure. *Pattern.* Very close-grained; almost no visible pattern. *Characteristics:* Light; tough; not strong. *Uses:* Cabinetmaking; inlay work. *Availability:* Veneer (sliced) — plentiful; lumber — available. *Price Range:* Medium.

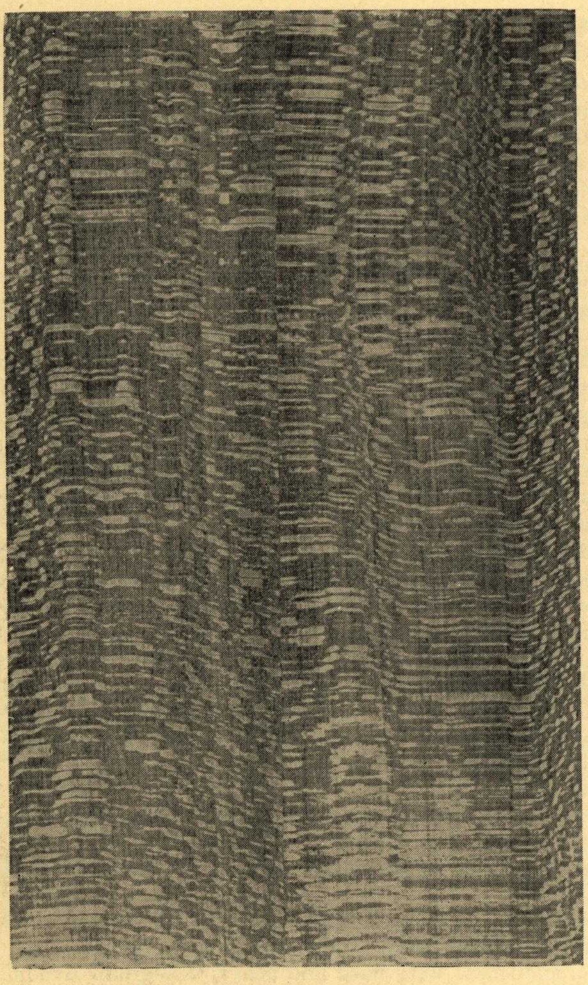
Hornbeam *(Carpinus betulus,* L. Europe; *Carpinus caroliniana,* Walt. Canada*)* — Ironwood
Characteristics: Very hard and heavy; fine grain. *Availability:* Commonly called Ironwood, cut into veneer; occasionally as lumber. *Price Range:* Medium.

Horse Chestnut — See Buckeye

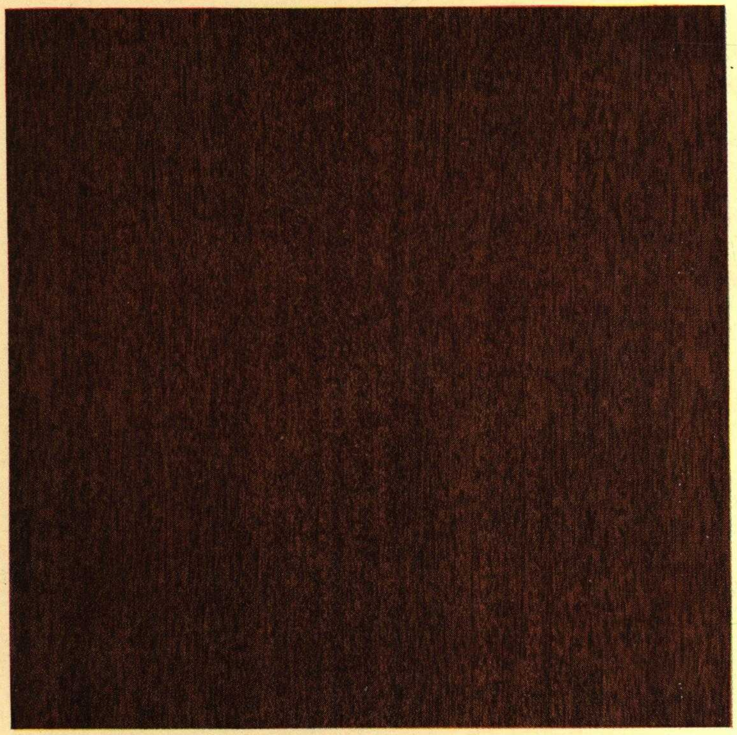
Hura *(Hura crepitans,* L.*)* — Rakuda
Source: Dutch Guiana. *Color:* Very light yellow wood. *Availability:* Rare to scarce.



123 — KOA (close up)



124 — LACEWOOD



125 — LAUAN, RED (2 pc. finished)

IMBUYA *(Phoebe porosa,* Mez.*)* — Brazilian Walnut, Determa, Embuia, Imbuia
Source: Brazil. *Color:* Rich brown. *Pattern:* Sometimes blistered. *Characteristics:* Fine textured; moderately hard and heavy. *Uses:* High-grade furniture; joinery; paneling; flooring. *Availability:* Veneer (sliced, half-round) — plentiful. *Price Range:* Medium.

INCA
Source: Northern South America. *Color:* Light brownish to red. *Pattern:* Normally large scale burl figure. *Availability:* Scarce. *Price Range:* Moderate to costly.

INCA BURL — A trade name
Color: Yellow to brownish-red. *Pattern:* Largely in the form of a coarse burl. *Availability:* Scarce. *Price Range:* Medium.

Ipe *(Tecoma, spp.;* also *Tabebuia, spp.)*
Source: South America. *Color:* Considerable range, light yellow to dark. *Characteristics:* Considerable weight and density, resembling greenheart. *Uses:* General construction but can be used as would Prima Vera. *Availability:* Largely used locally. *Price Range:* Medium except when figured.

IREME *(Terminalia ivorensis,* A. Chev.*)* — African Teak, Black Afara, Emeri, Framerie, Iroko *(See Plate 122)*
Source: Africa, Gold Coast. *Color:* Pale yellow to light brown. *Pattern:* Faint ribbon stripe with intermediate grain and noticeable rays. *Uses:* Panels and cabinetwork. *Availability:* Plentiful as veneers. *Price Range:* Moderate.

IROKO *(Chlorophora excelsa)* — Oroko, Odoum
Source: Africa, West Coast. *Color:* Light brown to rich golden brown. *Pattern:* Quartered. *Characteristics:* Somewhat like teak. *Uses:* Fine furniture and architectural panels. *Availability:* Rare. *Price Range:* Inexpensive to low.

IRONWOOD, AMERICAN *(Carpinus caroliniana)*
Source: Northeastern States (including Quebec) west and southwest through Central States into northern Mexico. *Color:* Brownish-gray. *Characteristics:* Extremely hard, heavy and strong. *Uses:* Mallets; implements; and (rarely) as flooring. *Availability:* Rarely cut into veneers; lumber — very scarce. *Price Range:* Moderate.

IRONWOOD, BLACK *(Krugrodendron ferreum)*
Source: Tropical America into southern United States. *Color:* Dark brown to reddish-black. *Characteristics:* Very hard, heavy, strong and dense. Noted as the heaviest wood growing in the United States. Its specific gravity being 104 or over 80 pounds per cu. ft. *Availability:* Not commercially.

Italian Olive — See Olive, Italian

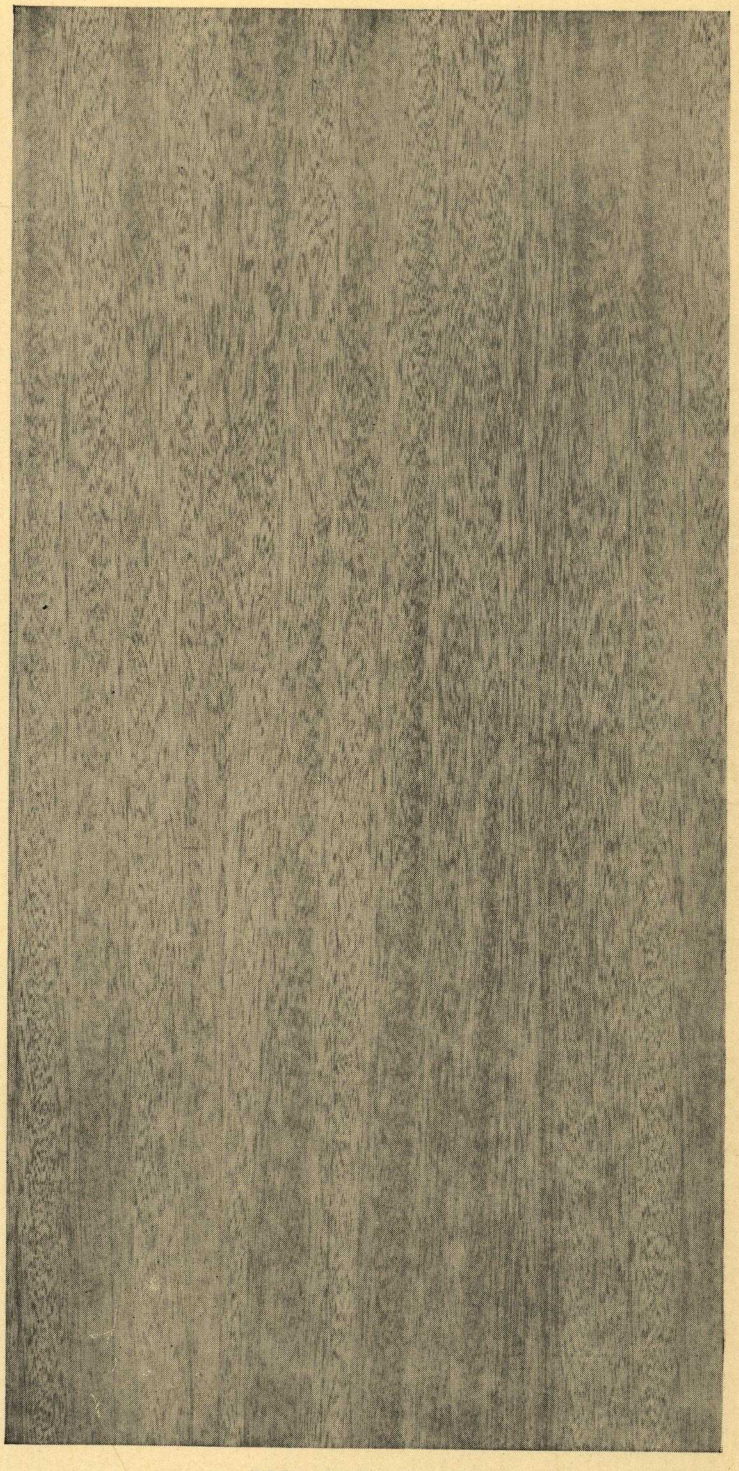
IVORYWOOD — Several woods bear this name. The one available in veneer form is almost ivory in color, rather plain, coarse-grained and available either in quartered or flat cut veneers.

JACARANDA — See Rosewood, Brazilian

Jarrah *(Eucalyptus marginata,* Sm.*)*

JENISERO — See Kelobra

126 — LAUAN, WHITE (2 pc.)



127 — LIMBA (2 pc.)

Jequitiba *(Cariniana, spp.)*

JUNIPER — See Cedar, Aromatic Red

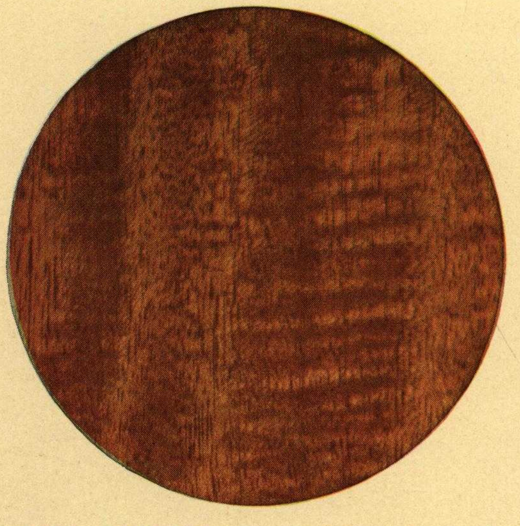
KAMBALA — See Iroko

Kapok — See Ceiba

KELOBRA *(Enterolobium cyclocarpum* (Jacq.), Gris.) — Guanacastle, Genizero, Jenisero, Parota

Source: Mexico, Guatemala, British Honduras. *Color:* Brown with greenish cast, sometimes streaked. *Pattern:* Large figure with wavy lines. *Characteristics:* Coarse texture; very large pores; pronounced break between sapwood and heartwood. *Uses:* Furniture and cabinetry. *Availability:* Veneer (quartered), crotches and swirls — scarce; lumber available. *Price Range:* Medium.

KEWAZINGA — See Bubinga



37C — MAHOGANY, FIGURED (close up)

KINGWOOD *(Dalbergia cearensis,* Cucke*)* — Violetwood *Source:* Northern South America, mainly Brazil. *Color:* Violet to purple to brown with age; colorful wood. *Pattern:* Fairly prominent grain. *Characteristics:* Rich colorings. *Uses:* Marquetry; inlays. *Availability:* Rare, and in very small sizes. *Price Range:* Costly.

KOA *(Acacia Koa,* Gray*) (See Plate 123)*

Source: Hawaii. *Color:* Golden brown with dark streaks. *Pattern:* Brown streaks; lustrous sheen. Occasionally develops a perfect fiddleback figure or other cross figure. *Characteristics:* Walnut-like texture but not as hard. *Uses:* Originally for art objects and musical instruments; also for fine furniture. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.

KOKKO *(Albizzia lebbeck)* — Koko

Source: Andaman Islands, India, Burma, Ceylon. *Color:* Brown and golden in extremely varied tones. *Availability:* Rare. *Price Range:* High.

KORINA* — See Limba (Copyrighted trade name for Limba). *Registered U. S. Patent Office.

LACEWOOD *(Cardwellia sublimis,* F. Muell.*)* — Australian Silky Oak, Queensland Silky Oak, Selano, Silky Oak *(See Plate 124)*

Source: Queensland, Australia. *Color:* Light pink with silvery sheen. *Pattern:* Small flaky grain due to large rays. *Characteristics:* Very attractive overall pattern when used on small areas. *Uses:* Often as borders and limited, highly figured areas of fine furniture. *Availability:* Veneer (quartered) — scarce. *Price Range:* Costly.

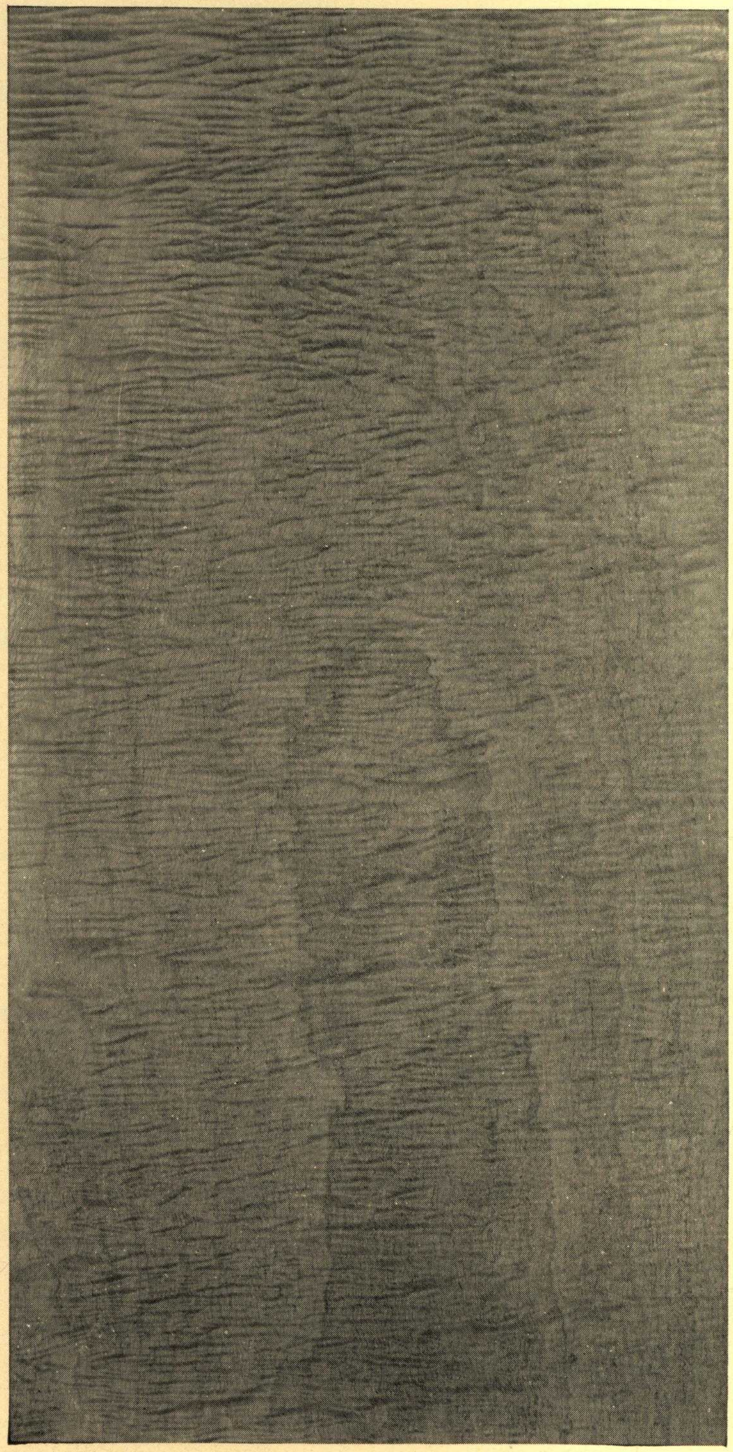
LARADO — See Capomo

LAUAN, RED — See Philippine Hardwoods

LAUAN, WHITE — See Philippine Hardwoods

LAUREL *(Laurau nobilis,* L.*)* — Baytree, Sweet Bay

1. **Laurel, American** *(Kalmia Latifolia,* Linn.*)*
2. **Laurel, California** — See Myrtle Burl
3. **Laurel, East Indian** *(Terminalia tomentosa,* W. et A.*)* — East Indian Walnut
   Source: India and Burma. *Color:* Gray or brown with black lines. *Pattern:* Striped; occasional block-mottle or



37 — MAHOGANY, FLAT CUT, FIGURED

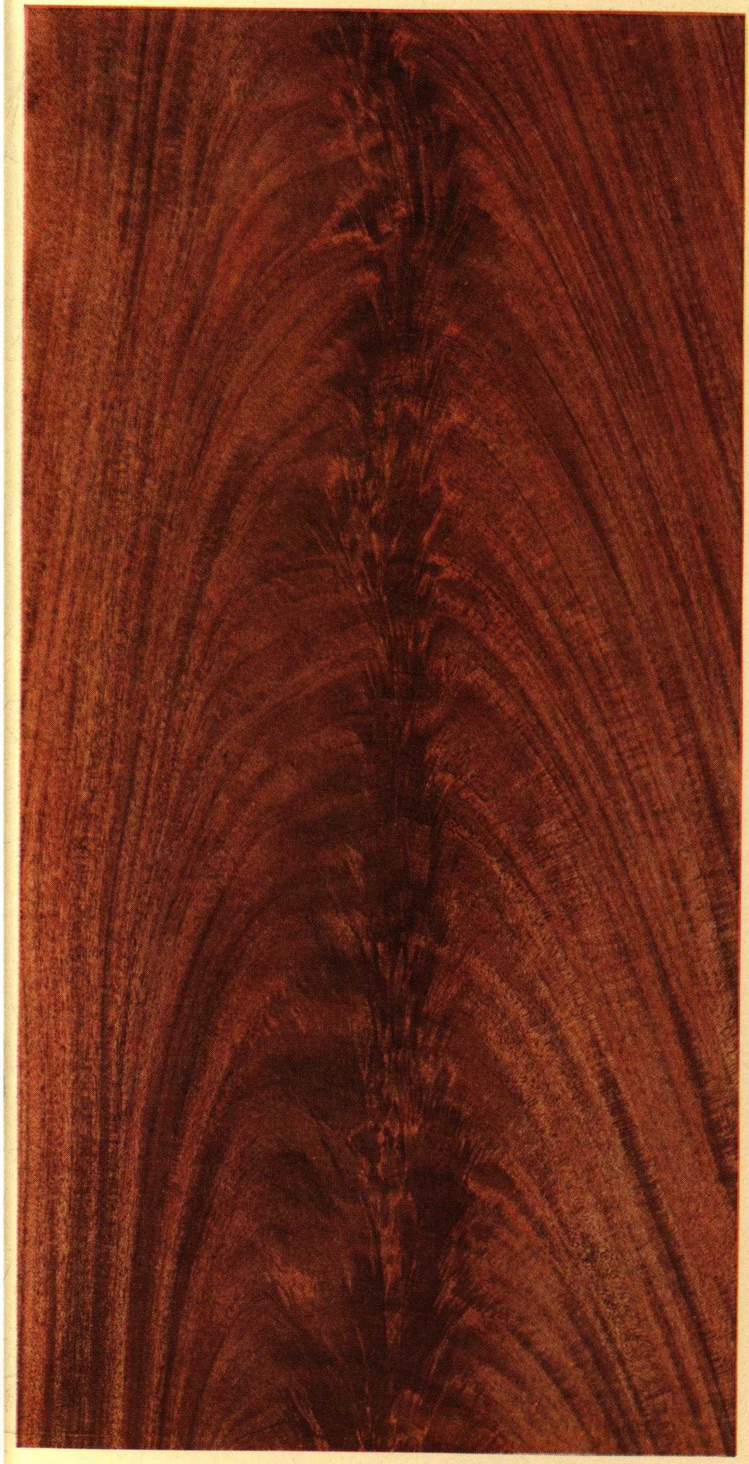
fiddleback figure; indistinct rays. *Characteristics:* Coarse-grained; hard and brittle; pores not numerous. *Uses:* Fine cabinetry. *Availability:* Veneer (quartered) — scarce; lumber — scarce. *Price Range:* Costly.

4. **Laurel, Rose** — A trade name of one of the Australian hardwoods that has a tannish background with dark to black streaks.

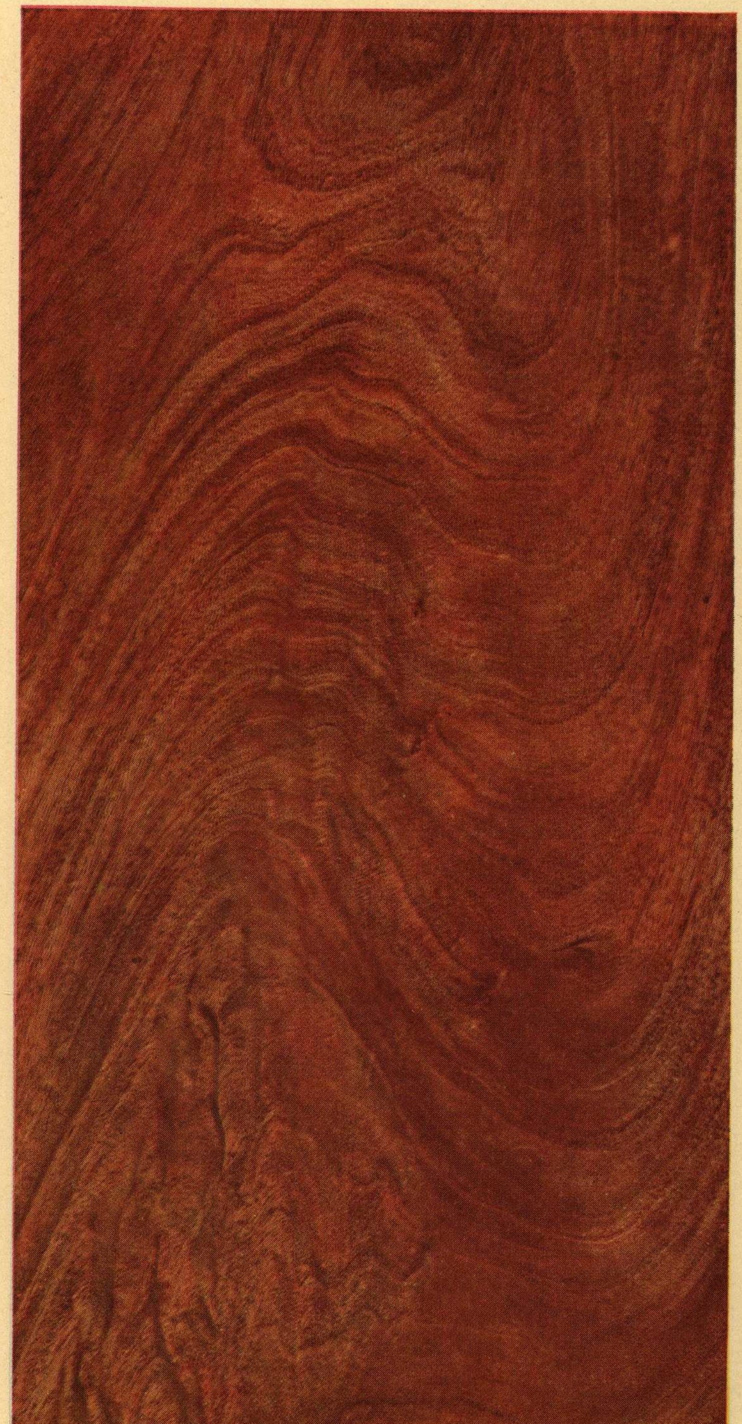
   Availability: Scarce. *Price Range:* Medium.

LEMONWOOD *(Calycophyllum candidissimum)* — Degame *Source:* Central America. *Color:* Creamy yellow; sapwood colorless to brownish white. *Pattern:* Generally straight grain. *Characteristics:* Uniformly textured; easy to work; hard; heavy; tough and strong. *Uses:* Archery bows; turnery; shafts; tool handles, fishing rods; cabinet work. *Availability:* Veneers — no; lumber — available. *Price Range:* Costly.

LERADO — See Capomo



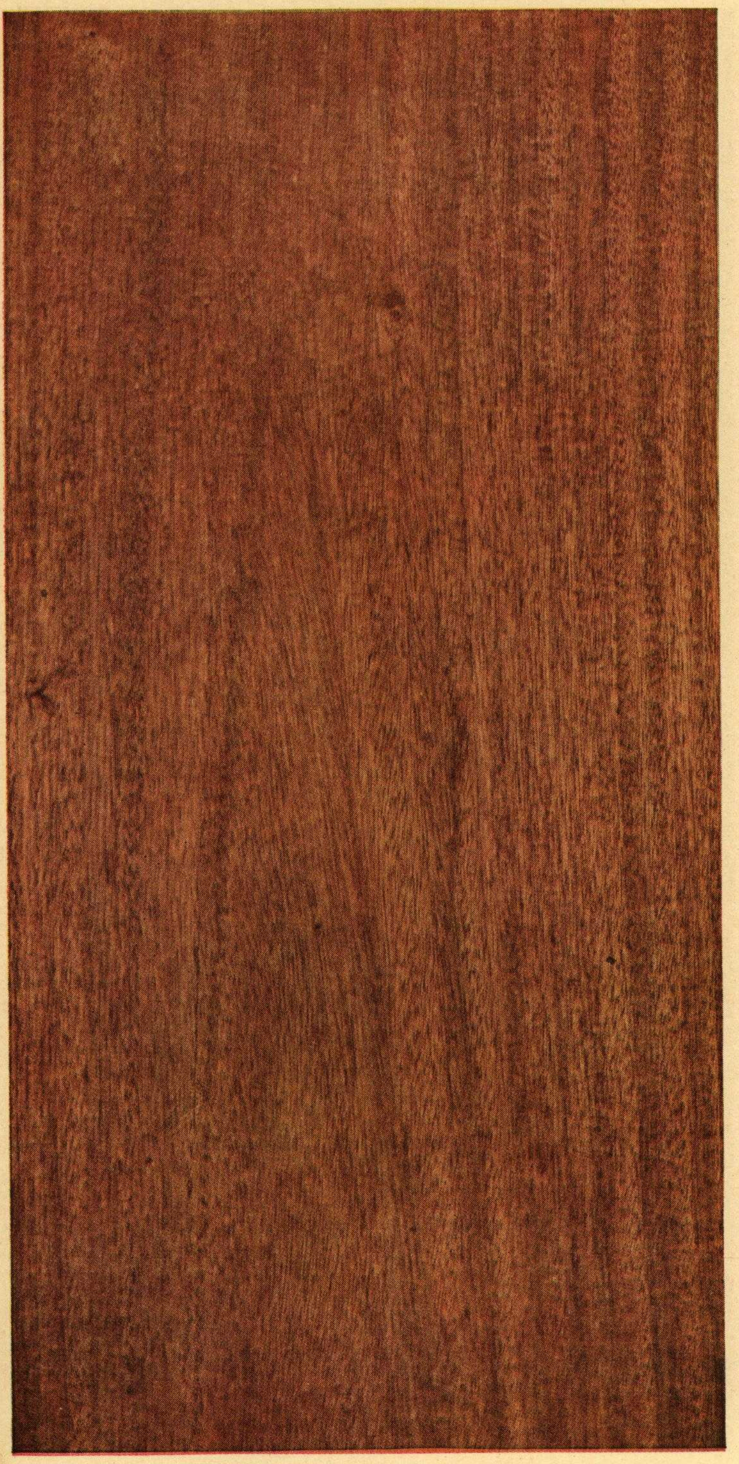
1 — MAHOGANY, CROTCH



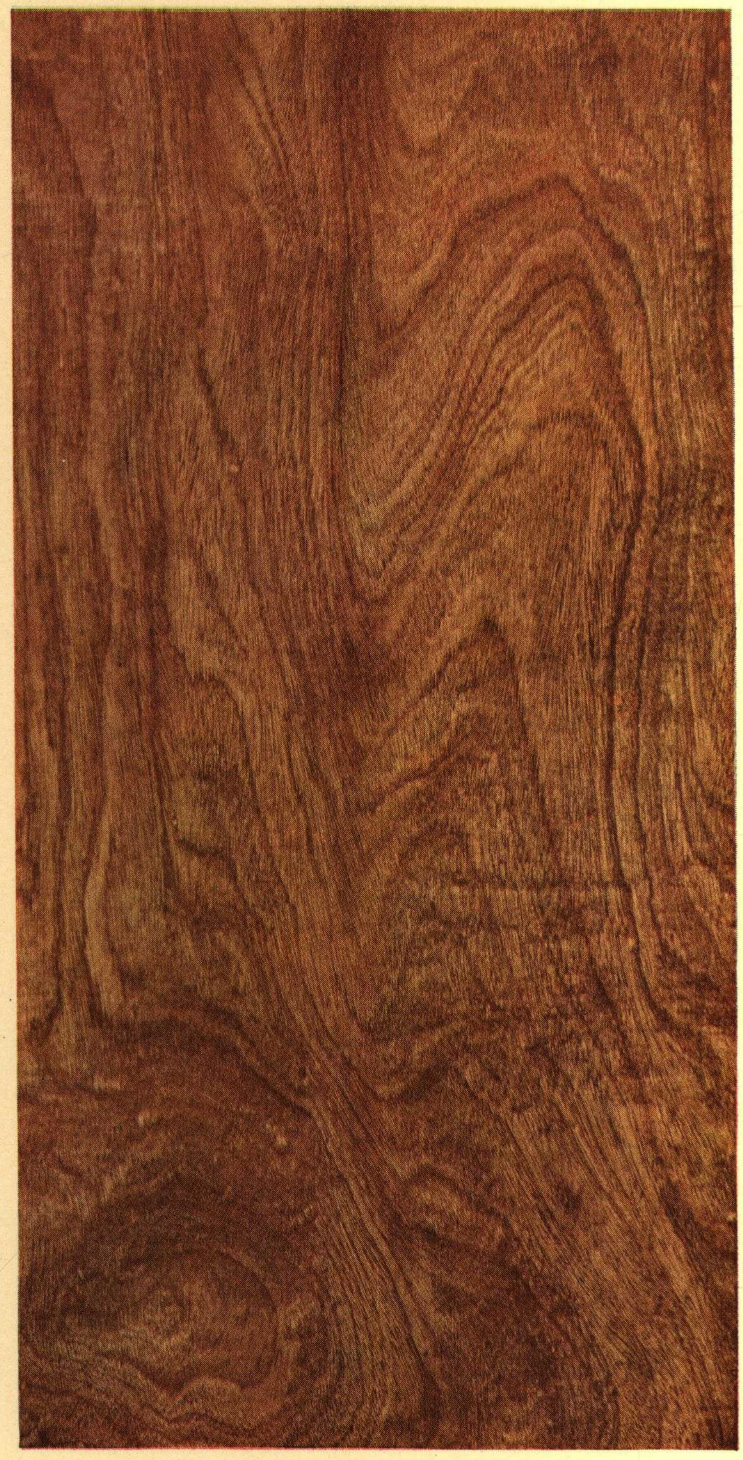
3 — MAHOGANY, SWIRL

LIGNUM VITAE *(Guaiacum officinale,* Linn.; *Guaiacum Sanctum,* Linn.*)* — Guayacan
Source: Tropical North America; West Indies, south to Nicaragua. *Color:* Variable from olive brown to dark brown and nearly black. *Characteristics:* Especially oily or waxy wood; mildly scented; extremely hard and heavy, with decidedly interwoven grain texture; very fine; highly difficult to work; especially durable. *Uses:* According to Record, Lignum Vitae (Wood of Life) has been an article of trade since 1508 when introduced in Europe for medical purposes. Its most important use is for bearings or bushings; lining propellor shafts of steamships due to self-lubricating properties, especially under water; mallets; stencil and chisel blocks; brush backs. *Availability:* Rare as lumber and in comparatively small sizes. *Price Range:* High.

LIMBA *(Terminalia superba,* Eng. & Diels.*)* — "Korina," Afara, Frake, Offram *(See Plate 127)*



7 — MAHOGANY, FLAT CUT, PLAIN



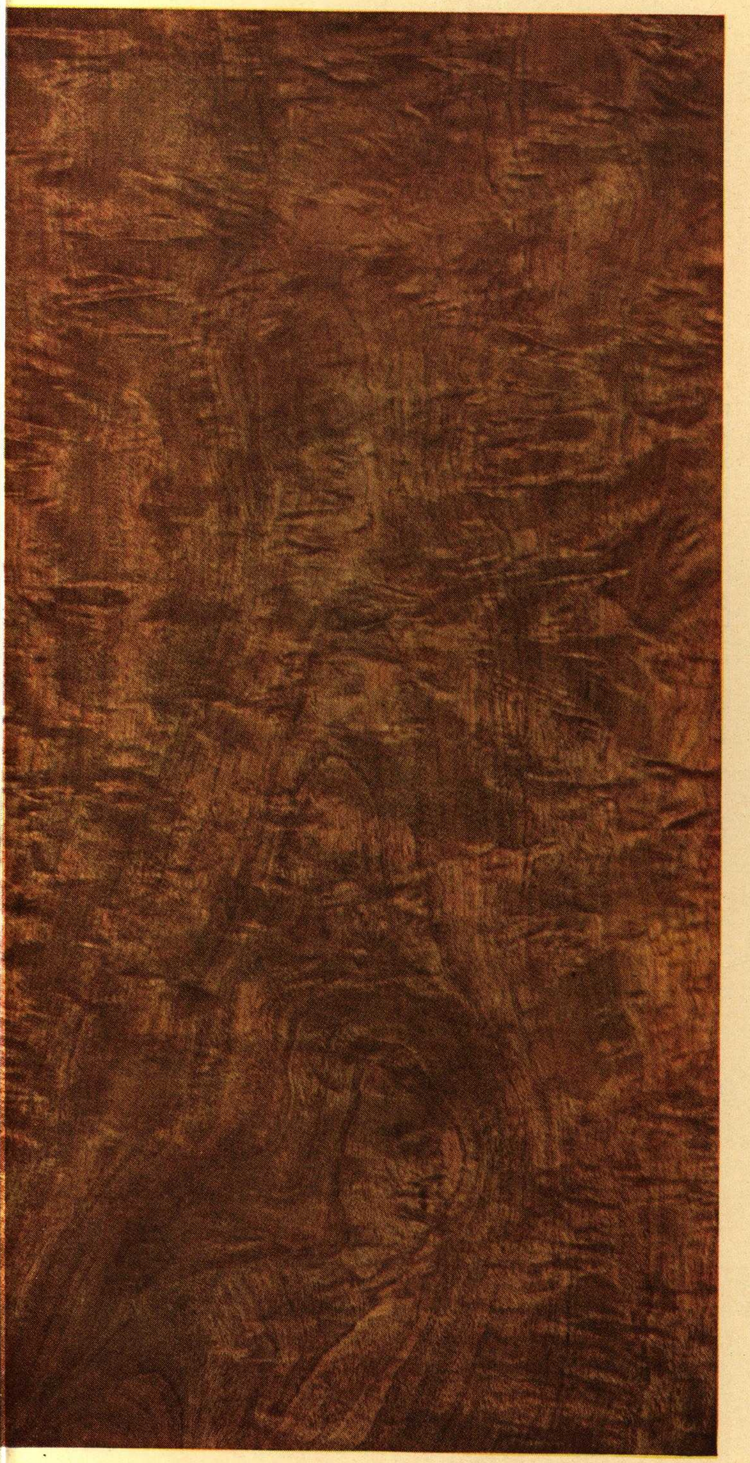
31 — MAHOGANY, FLAT CUT, SWIRLY

Source: West Africa. *Color:* Pale yellow to light brown. *Pattern:* Rays are fine and irregular; pores are scarce, but large enough to give an interesting grain character. *Characteristics:* Medium texture and hardness; a naturally blonde wood of good working properties. *Uses:* Architectural paneling and woodwork; contemporary furniture. *Availability:* Veneer (quartered, sliced) — plentiful; lumber — available. *Price Range:* Medium.

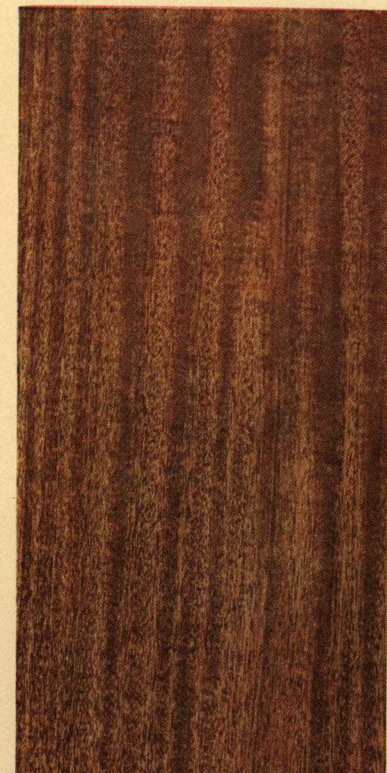
LOCUST, BLACK *(Robinia pseudoacacia,* Linn.*)* — Yellow Locust

Source: Southern United States. *Color:* Yellowish green to brown. *Characteristics:* An attractive fairly prominent grain. Often defective. *Uses:* Widely as fence posts. *Availability:* Plentiful to rare. *Price Range:* Medium.

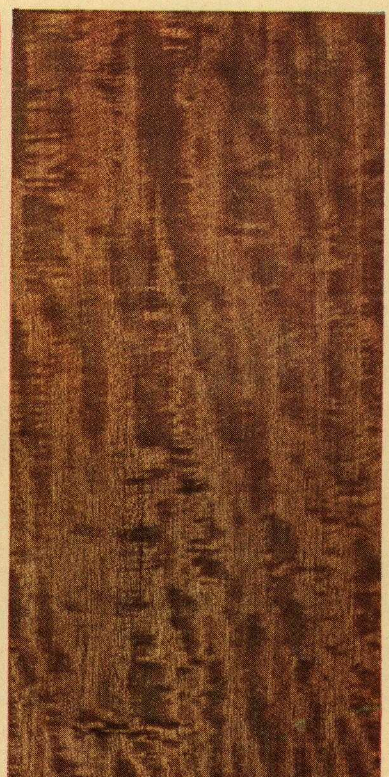
Locust, Honey *(Gleditschia triacanthos,* L.*)*



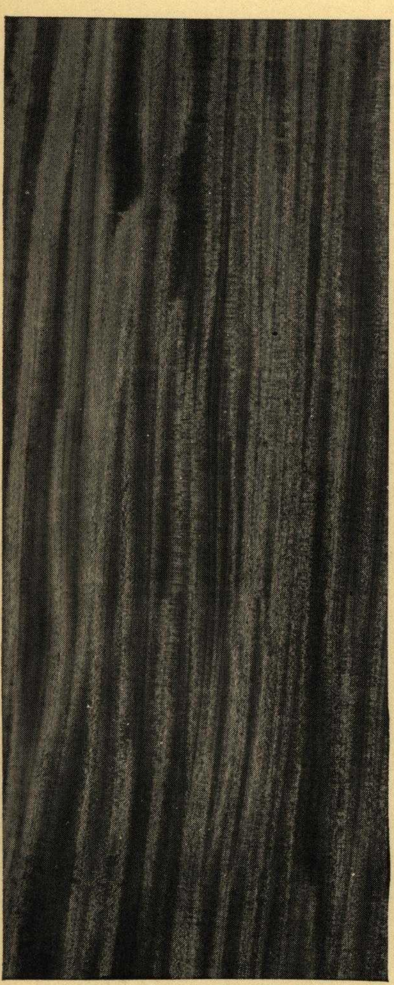
40 — MAHOGANY, FLAT CUT, SWIRLY, FIGURED

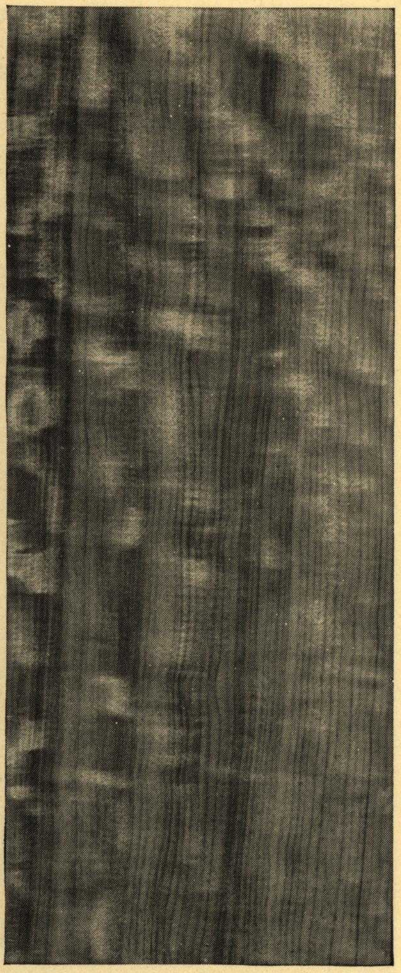


25 — MAHOGANY, QUARTERED, RIBBON STRIPED



6 — MAHOGANY, QUARTERED, MOTTLED


26 — MAHOGANY, QUARTERED, BROKEN STRIPE


128 — MAKORI, QUARTERED, MOTTLED

Source: Eastern United States. Limited quantities of lumber are produced.

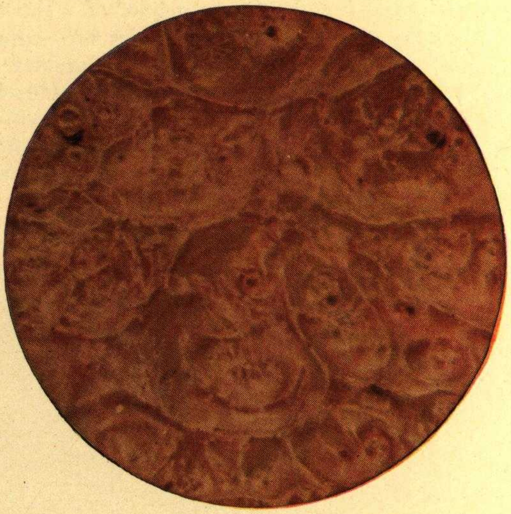
Macawood *(Platymiscium, spp.)* — Brazilian Padauk
Source: Northern South America and Central America. *Color:* Reddish-brown. *Pattern:* Irregular and sometimes striped. *Uses:* Furniture; musical instruments; knife handles. *Availability:* Scarce. *Price Range:* Expensive.

Macaya *(Andira inermis,* H.B.K.*)* — Partridge Wood

MADORO and Mindoro
Source: Brazil. *Color:* Tan with darker brown stripes. *Pattern:* Brown stripes and often with Bee's Wing figure. *Availability:* Rare. *Price Range:* Moderate to costly.

MADRONE BURL *(Arbutus Menziesii,* Pursh.*)* — Madrona, Madrono
Source: Pacific Coast from British Colombia into Mexico. *Color:* Reddish-brown. *Pattern:* Close grain. Pronounced medullary rays. *Characteristics:* Hard. *Uses:* Usually produced as blocks for making pipes. *Availability:* Veneer (half-round, burls) — scarce. *Price Range:* Costly.

MAGNOLIA *(Magnolia grandiflora,* Linn.; *Magnolia acuminata)* — Cucumber Tree


129 — MAPLE, QUILTED (close up)

Source: Southern United States, especially in the Appalachians. *Color:* More dark streaks than poplar, sometimes with greenish cast. *Pattern:* Fairly distinct. *Characteristics:* Very much like yellow poplar but slightly harder and heavier (e.g. Poplar 3,200 lbs./m ft. dry; magnolia 3,400). *Uses:* About same as yellow poplar. *Availability:* Plentiful. *Price Range:* Inexpensive.

MAHOGANY — An often misused name, applied to many woods not of the Mahogany family. The three authentic commercial species of Mahogany are *Swietenia mahogani, Swietenia macrophylla,* and *Khaya ivorensis.* (All true Mahoganies are the Meliaceae family, genera Swietenia or Khaya.) Their descriptions follow. *(See Plates on pages 32, 33, 34, 35 and 36)*

1. **MAHOGANY, AFRICAN** *(Khaya ivorensis,* A. Chev.*)*
Source: Africa (Ivory Coast, Gold Coast, French Cameroon, Cape Lopez, Nigeria). *Color:* Light pink to reddish-brown and tannish-brown. *Pattern:* Although pores are distributed, this wood produces a very distinct, pleasing grain. The most lavishly figured mahogany offered in plain stripe, broken stripe, mottle, fiddleback, fine crotches and faux swirl. *Characteristics:* Available in great lengths and widths; milder textured with slightly larger pores than other Mahogany species; relatively hard; works well; highly lustrous; polishes well; durable. *Uses:* Interiors; furniture; accessories and art objects; boats, etc. *Availability:* Veneer (quartered, sliced, half-round, rotary) — abundant; lumber — abundant. *Price Range:* Medium; for highly figured veneers — costly.

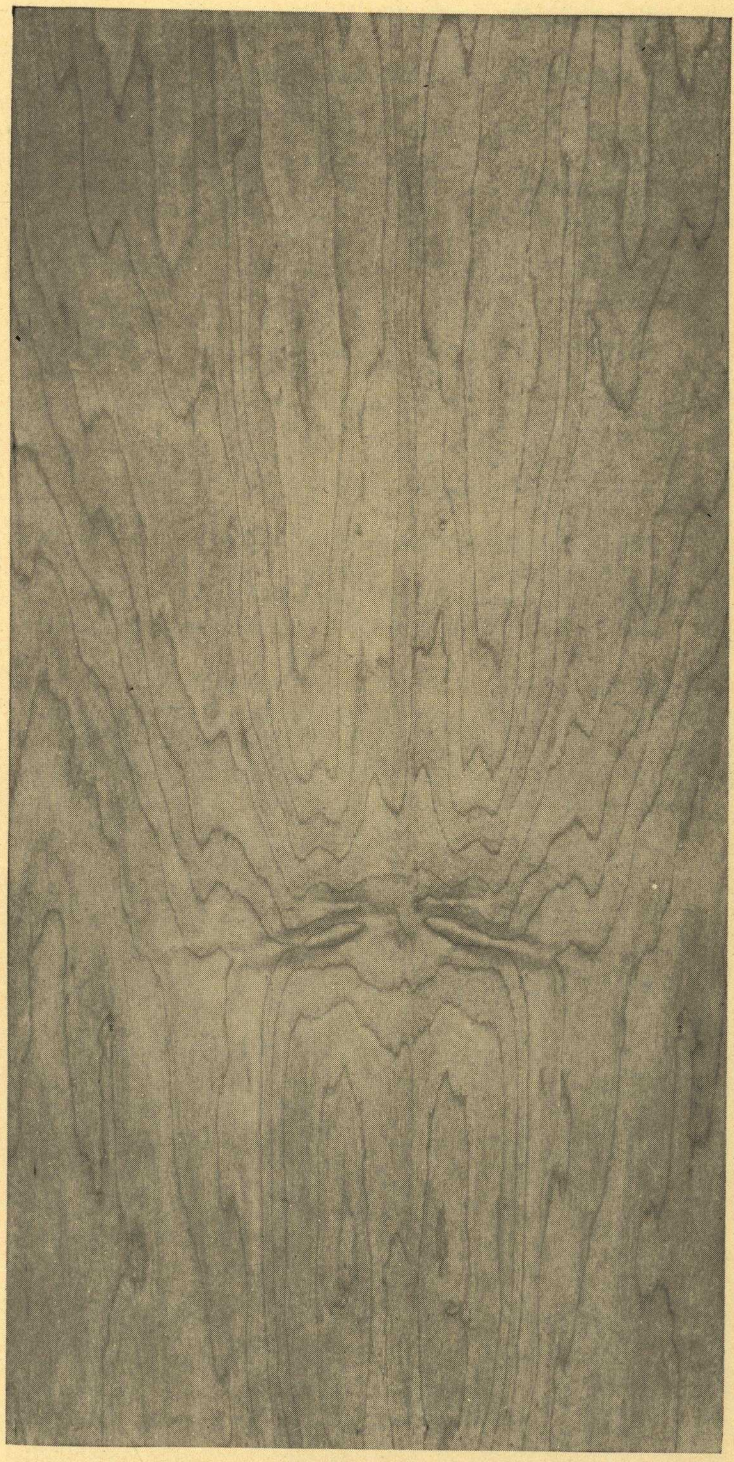
2. **MAHOGANY, CUBAN** *(Swietenia mahogani,* Jacq.*)* — West Indian Mahogany, Jamaica Mahogany, Puerto Rico Mahogany, etc.
Source: Cuba (formerly also from throughout West Indies, principally Santo Domingo (Dominican Republic)). *Color:* Light red or yellowish-tan when cut, darkens rapidly to deep, rich golden-brown or brown-red; exceptionally fine colors. *Pattern:* Highly figured; mottle; fiddleback, crotches plus plain stripes. *Characteristics:* Heavier and harder than other mahoganies; wears exceptionally well; extremely durable; close-grained; takes excellent finish; ideal

130 — MAPLE, BIRDSEYE

turnery wood; takes an exceptionally smooth surface and fine silky texture; works well; high golden lustre; good strength and bending properties. *Uses:* Fine cabinetry. *Availability:* Veneer (half-round and sliced) — limited quantities. (The export of this species from Cuba was banned in 1946. It is quite scarce and not commercially available from Haiti, Jamaica and Dominican Republic.) *Price Range:* Costly.

3. **MAHOGANY, TROPICAL AMERICAN,** including **PERUVIAN** and **BRAZILIAN MAHOGANY** *(Swietenia macrophylla,* King). (Brazilian marketed as Amazon Mahogany.)

Source: Mexico, Brazil, Peru and Central America (especially Honduras). *Color:* Varies from a light reddish or yellowish-brown to a rich, dark red, depending upon country of origin and situation. Most supplies tend to be yellowish-tan, changing on brief exposure to rich, golden brown. *Pattern:* A considerable variety of figures, similar to African Mahogany except crotches are not readily available. Straighter grain generally. Location influences appearance also. *Characteristics:* Lighter and softer than Cuban; mostly straight-grained but even when interlocked is exceptionally stable; more mellow texture than Cuban (West Indian); extremely good strength properties; works well; stains and finishes well; durable and decay-resistant; Central America produces more figured logs for fancy veneers. *Uses:* Furniture; paneling; fine joinery; boats and ships; pattern-making; exterior uses. *Availability:* Central American in veneer (quartered, sliced, half-round) — abundant; lumber — plentiful. Brazilian and Peruvian — plentiful. *Price Range:* Inexpensive to medium.



131 — MAPLE, WHITE, ROTARY (2 pc.)

MAHOGANY, BRAZILIAN — See Mahogany, Tropical American. This name has also been incorrectly used for several Brazilian woods such as Andiroba and Jequitiba.

MAHOGANY, CHERRY — See Makori

MAHOGANY, DEMERARA — See Andiroba

MAHOGANY, EAST INDIAN — See Padauk, Andaman

MAHOGANY, GUATEMALAN — See Mahogany, Tropical American

MAHOGANY, HONDURAS — See Mahogany, Tropical American

MAHOGANY, JAMAICA — See Mahogany, Cuban

MAHOGANY, MEXICAN — See Mahogany, Tropical American

MAHOGANY, MOUNTAIN — See Cercocarpus

MAHOGANY, NICARAGUAN — See Mahogany, Tropical American

MAHOGANY, NIGERIAN — See Mahogany, African

MAHOGANY, PANAMA — See Mahogany, Tropical American

MAHOGANY, PERUVIAN — See Mahogany, Tropical American

"MAHOGANY," PHILIPPINE — See Philippine Hardwoods, Lauan

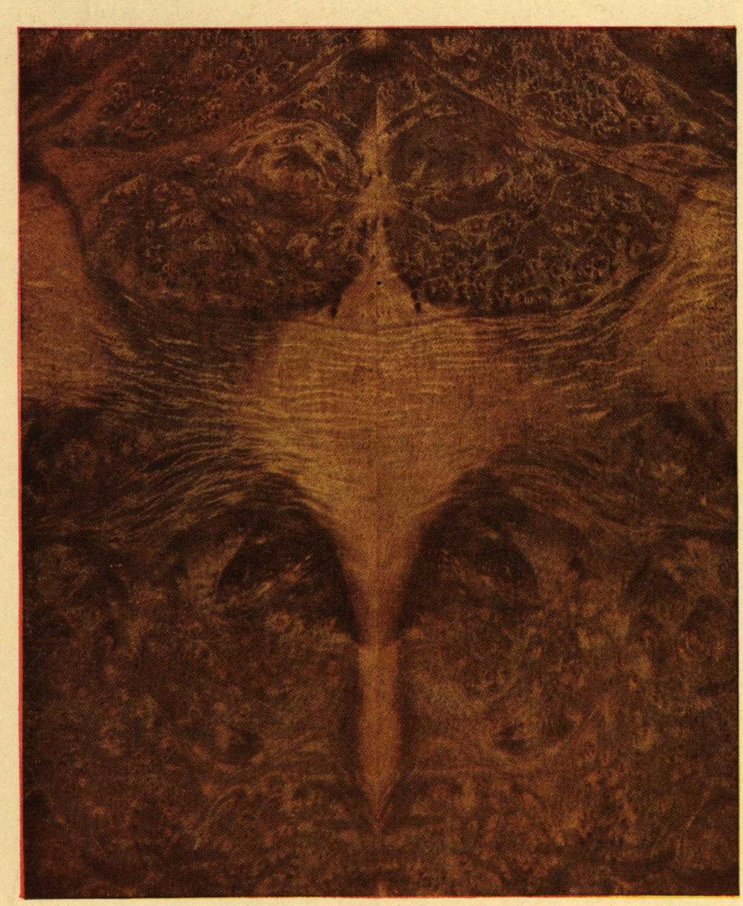
MAHOGANY, PINK — See Agba

MAHOGANY, ROSE — See Rosewood, Australian

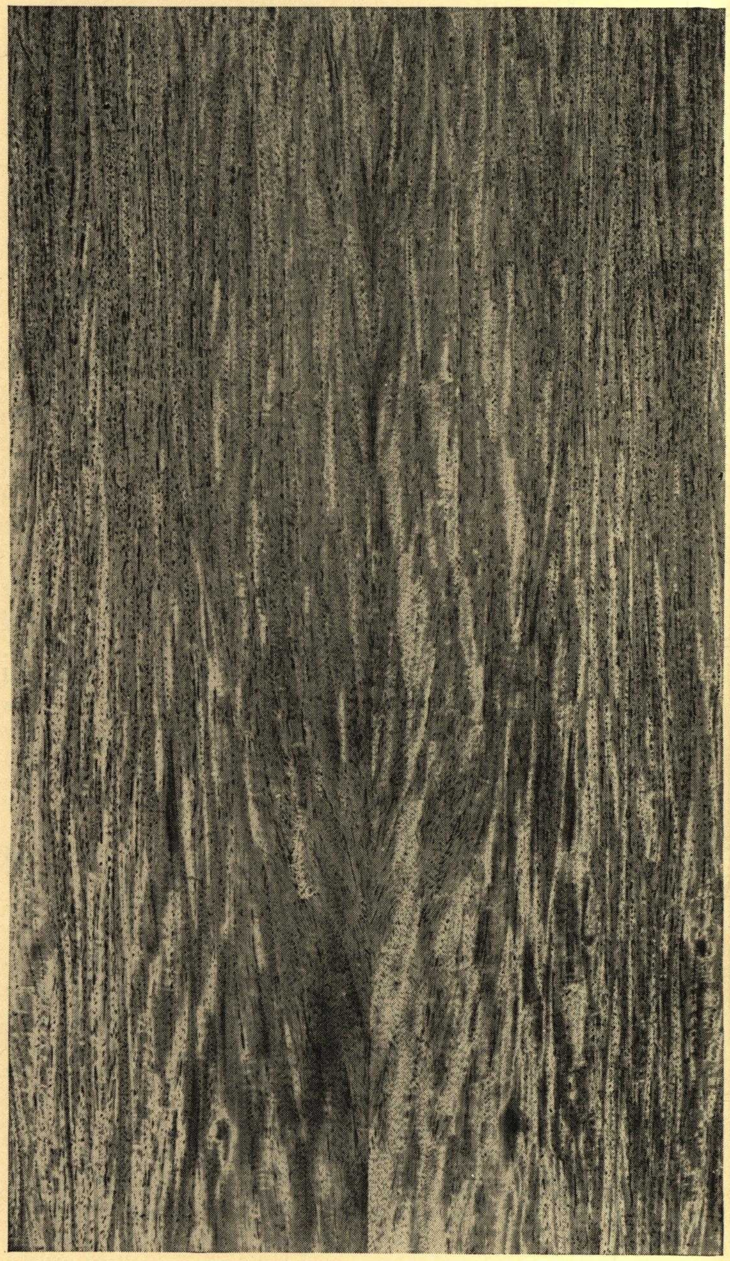
MAHOGANY, TABASCO — See Mahogany, Tropical American

MAHOGANY, WHITE — See Prima Vera

MAI DOU *(Pterocarpus pedatus,* Pierre) — Madou, Maidou, Mai Padu, "Falsa Amboyna wood burl."
Source: French Indo-China. *Color:* Scarlet and pale straw. *Pattern:* Satiny, ribbon stripe; burls; crotches; closely re-



132 — MYRTLE BURL (2 pc.)



133 — NARRA (2 pc.)

sembles Burmese Padauk and Amboyna. *Uses:* Decorative interiors and furnishings. *Availability:* Veneer (half-round) — rare. *Price Range:* Costly.

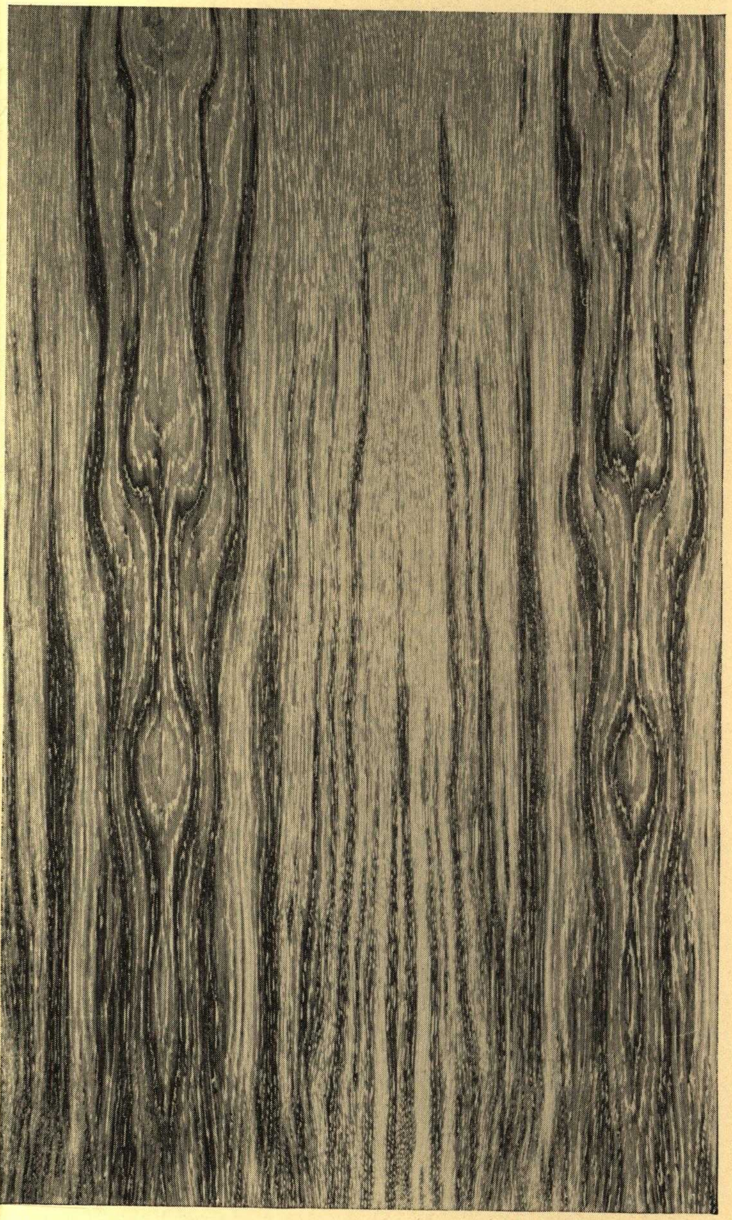
MAKORI *(Mimusops heckelii,* Hutch. & Dalz.*)* — African "Cherry," Baku, Cherry "Mahogany," Makore *(See Plate 128)*

Source: African Gold Coast, Nigeria. *Color:* Pinkish-brown to blood red or red brown. *Pattern:* Somewhat similar to a close-grained mahogany but with dark red growth lines and smaller pores as found in cherry. Some logs are straight-grained and show figure like African Mahogany stripes; others have a striking, checkered figure sometimes streaked with darker color. *Characteristics:* Finer textured than true mahoganies, and denser, harder and heavier; tough; stiff; large sizes; strong; gummy and lustrous; glues well; works fairly easy. *Uses:* Furniture and cabinetry. *Availability:* Veneer (quartered, sliced) — plentiful. *Price Range:* Medium.

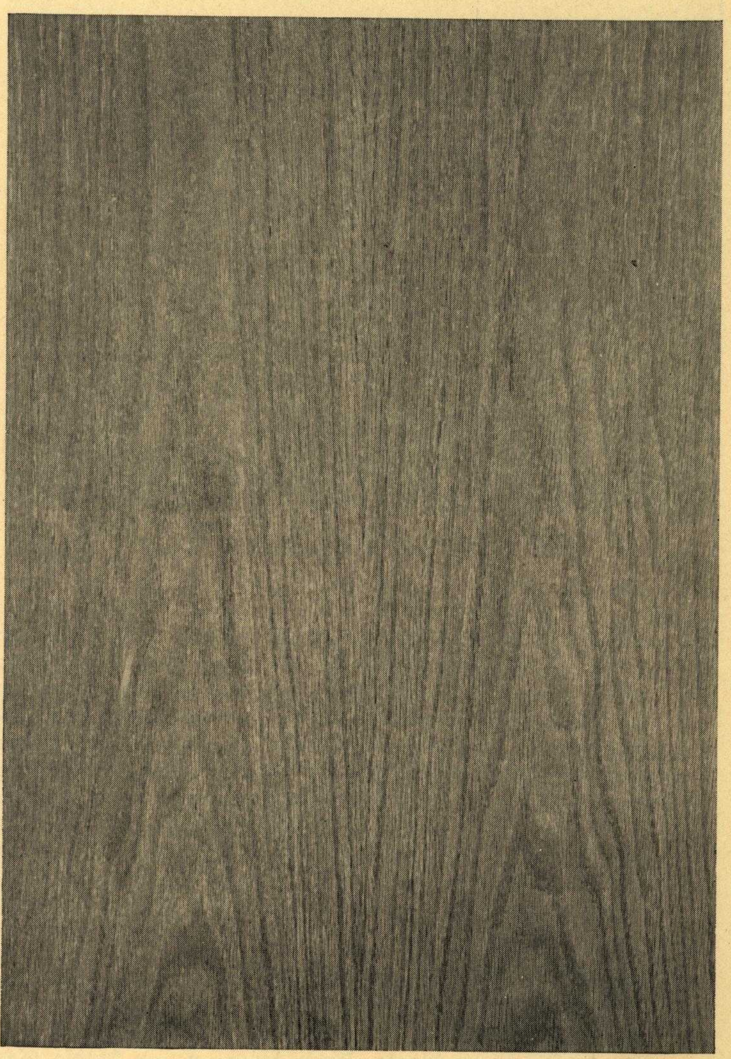
MANGGASINORA — See Sonora

MANSONIA *(Mansonia altissima,* A. Chev.*)* — Aprono, Ofun, Opruno, "African Black Walnut" (misleading)
Source: African West Coast (Nigeria, Gold Coast, Ivory Coast). *Color:* Somewhat similar to walnut (whitish sapwood, yellowish-brown to greyish and purplish-brown heartwood) in darker varieties, but color varies considerably. *Pattern:* Similar to Walnut, especially plain sliced or quartered stripe. *Characteristics:* Usually straight-grained; smooth; fine-textured; heartwood decay-resistant; harder than American Walnut, similar in strength and about equal to walnut in other categories; works easily; glues well; finishes excellently. *Availability:* Veneer (quartered) — plentiful. *Price Range:* Medium.

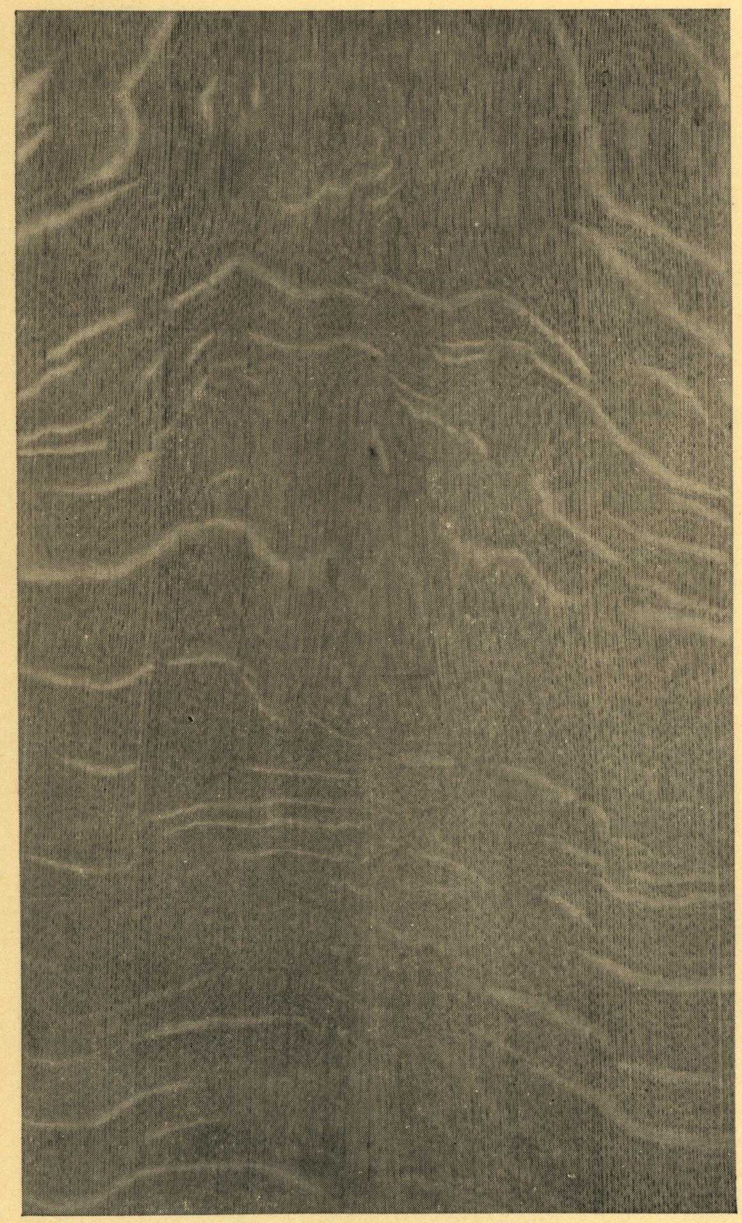
"MAPLE," AUSTRALIAN *(Flindersia brayleyana,* F.v.M.; *Flindersia chatawaiana,* Bailey; *Flindersia pimenteliana,* F.v.M.*)* — "Maple Silkwood," "Queensland Maple," Red Beech, Warri. (Not of the Maple (Acer) family.)



134 — OAK, ENGLISH (4 pc.)



135 — OAK, RED



136 — OAK, WHITE, QUARTERED (2 pc.)

Source: Australia (Queensland, New South Wales). *Color:* Light red similar to African Mahogany. *Pattern:* Wavy; curly; plain to stripe — refined character. *Characteristics:* Medium, uniform texture; often interlocked grain; silken lustre; light weight; works easily; stains readily; polishes excellently; tough; moderately elastic but poor bending strength; glues easily; hard, close grain; small, scarce pores. *Uses:* One of the finest Australian cabinetwoods used for fine furniture; decorative interiors; boat interiors, planking and rudders; propellers. *Availability:* Veneer (quartered, sliced, half-round) — scarce. *Price Range:* Costly.

MAPLE, BIRDS EYE — See Maple, Hard

MAPLE, HARD *(Acer saccharum,* Marsh.*)* — Birds Eye Maple, Northern Maple, Rock Maple, Sugar Maple *(See Plates 129, 130, 131)*

137 — OAK, WHITE, RIFT (2 pc.)

Source: Lake States, Appalachians, Northwest United States; Canada. *Color:* Cream to light reddish-brown heartwood; thin white sapwood tinged slightly with reddish-brown. *Pattern:* Usually straight-grained; sometimes found highly figured with *curly, blistered, quilted, Birds Eye* or burl grain, scattered over entire tree or in irregular stripes and patches. *Characteristics:* Heavy; hard; strong; close-grained; tough; stiff; uniform texture. Excellent resistance to abrasion and indentation. *Uses:* Furniture; interiors; fixtures; flooring, woodenware; cutting surfaces; bakery paddles and other industrial uses; school furniture; decorative inlays and overlays. *Availability: Plain maple* — veneer (quarter, sliced, half-round, rotary) — plentiful; *Figured maple* — (including birds eye, butts, etc.) veneer (quartered, sliced, half-round, rotary) — rare. *Price Range: Plain maple* — medium; *Figured maple* — costly.

MAPLE, SOFT — See Maple, Silver

MAPLE, SILVER *(Acer saccharinum,* Linn.*)* — Soft Maple Same general characteristics as Hard Maple but not nearly as hard or strong. Usually shows considerable dark (mineral) streaks.

Availability: Plentiful as both veneer and lumber. *Price Range:* Medium to inexpensive.

Maple, Red *(Acer rubrum,* Linn.*)*
Normally not available in commercial quantities of veneers.

Maple, Oregon *(Acer macrophyllum,* Pursh.*)* — Big Leaf Maple
Source: Pacific Coast and Southern Canada. A true maple but not as hard or strong as southern maple. *Availability:* As both lumber and veneer, locally. As figured veneers (blistered, burl, etc.) — rare. *Price Range:* Inexpensive for plain types. Moderate to costly for quilted and burls.

MARNUT *(Dalbergia spp.)*
Source: Brazil. *Color:* Violet to brown with golden streaks. *Characteristics:* Somewhat like Kingwood. *Availability:* Rare. *Price Range:* Costly.

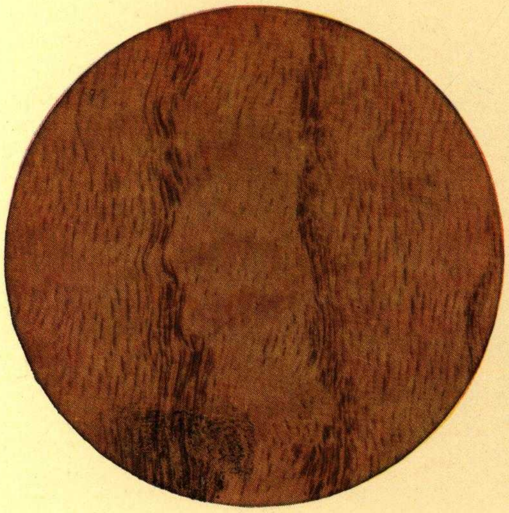
MOCHA *(Andira jamaicensis* (W.Wr.), Urb.*)* — Moca Moca Blanco, Moca Colorado
Source: Central America. *Color:* Yellow-brown. *Availability:* Veneer (half-round) — rare. *Price Range:* High.

MORADO — See Amaranth

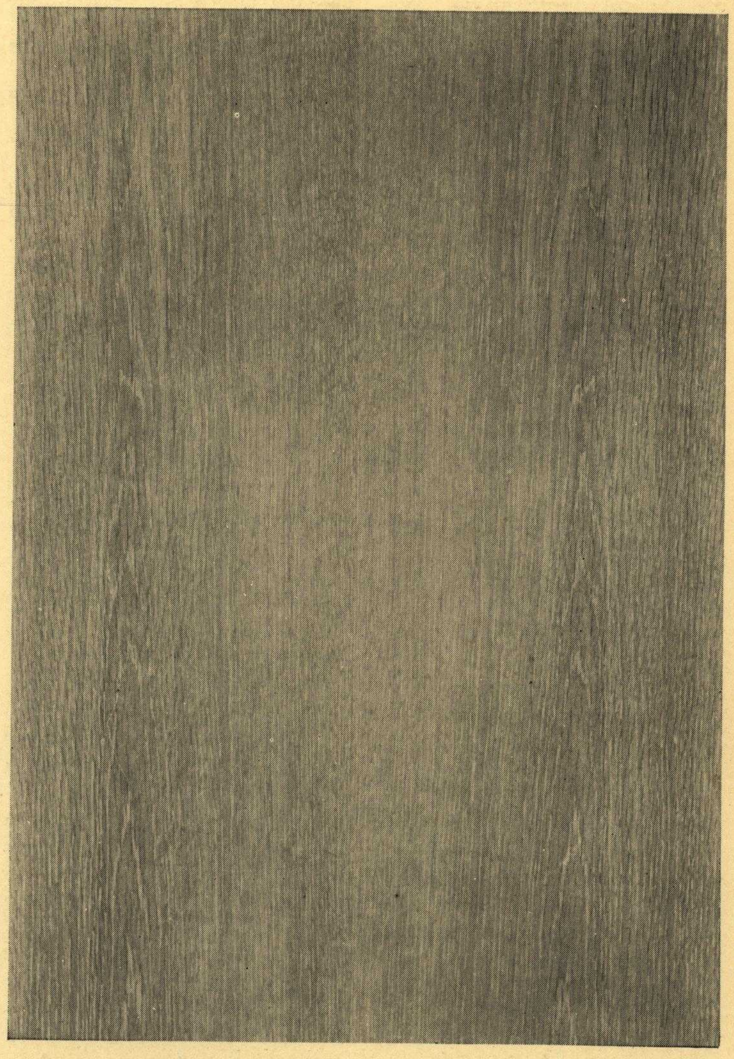
"MOUNTAIN ASH" — See Eucalyptus — Ash, Mountain

MOUNTAIN ASH *(Sorbus americana,* Marsh.*)*
Source: United States — over Northwestern area into Smoky Mountains. A decorative tree; wood of no commercial importance. (Not a true Ash.)

MOVINGUI *(Distemonanthus benthamianus,* Baill.*)* — Anyaran, Ayan, Nigerian Satinwood
Source: West Africa, Nigeria. *Color:* Light yellow. *Pattern:* Like satinwood. Fine textured, very lustrous surface. *Characteristics:* Grain often interlocking; moderately hard and heavy. *Uses:* Furniture; cabinet work; turnery; ships' fittings; flooring; interior decoration. *Availability:* Veneer (quartered, sliced) — scarce. *Price Range:* Medium.



138 — OAK, WHITE (close up)



139 — OAK, WHITE, FLAT CUT (2 pc.)

MYRTLE *(Umbellularia californica* (H. and A.) Nuttall.*)* — Acacia Burl, Baytree, California Laurel, Oregon Myrtle, Pepperwood. At times called Acacia but no relation. *(See Plate 132)*
Source: West Coast of United States, especially Southern Oregon and Northern California. *Color:* Golden-brown and yellowish-green. Wide range from light to dark. *Pattern:* Mixture of plain wood, mottle, cluster, blistered, stump and burl figure with a scattering of dark purple blotches. *Characteristics:* Hard; strong; pores the size and distribution of walnut. A magnificent, highly figured veneer. *Uses:* Decorative panels for architectural and furniture; novelties. *Availability:* Veneers (half-round) — rare to scarce; lumber — scarce. *Price Range:* Costly.

NAKORA* — Rotary cut, blonde hardwood from Japan. Extremely light in color with pronounced grain. *Registered U. S. Patent Office.

NARRA *(Pterocarpus indicus,* Willd.; *Pterocarpus echinatus)* — Angsena, Sena *(See Plate 133)*
Source: Dutch East Indies, Philippines. *Color:* Rose to deep red. Some are golden yellow. *Pattern:* Distinct grain character; some ripple. *Characteristics:* Heavy and hard; not

strong; durable. *Uses:* High-grade furniture; interior finish of ships and vehicles. *Availability:* Veneer (quartered) — rare. *Price Range:* Costly.

NEW GUINEA WOOD *(Dracontomelum magiferum,* Blume*)* — *Guinea Wood, Guinea Walnut*
Source: New Guinea and Philippines. *Color:* Similar to Paldao. *Pattern:* Runs heavily to contrasting stripes — some mottle. *Characteristics:* A rather hard cabinetwood, very much like Paldao. *Uses:* Architectural panels and furniture. *Availability:* Veneer (quartered) — scarce. *Price Range:* Moderate to costly.

NORWAY BIRCH — See Birch, European

NYSSA — Botanical name for Black Gum

OAK, AMERICAN *(Quercus alba,* Linn.; *Quercus borealis,* Michx.*)*
(Includes several species from the Red Oak and White Oak groups.) Except for source and color, Red Oak and White Oak, the two leading American species, are very similar. Characteristics they have in common are:
Pattern: Quartered oak has a striking "flake" pattern caused by extremely large and wide rays that reflect light. Plain flat sliced or sawn oak has an attractive figure of stripes and leafy grain caused by the distinct layers of springwood and summerwood and the large pores, especially concentrated in the springwood. Rift-cut (half-round) oak has a fine pin-stripe. Rotary cut oak has a distinct watery figure with great contrast. *Characteristics:* A heavy, ring-porous hardwood with larger, more prominent pores in the springwood than summerwood; very strong and very hard; stiff and heavy; durable under exposure; great wear-resistance; holds nails and screws well. Red and white oak look very similar when finished and because of its large pores, oak takes a great variety of fine filled or textured finishes. *Uses:* Flooring (both solid and plywood tiles); furniture; paneling; and general construction; shipbuilding; display and store fixtures; handles; boxes and various industrial uses. *Availability:* Veneer (quartered, sliced, half-round, rotary) — plentiful; lumber — available. *Price Range:* Medium.

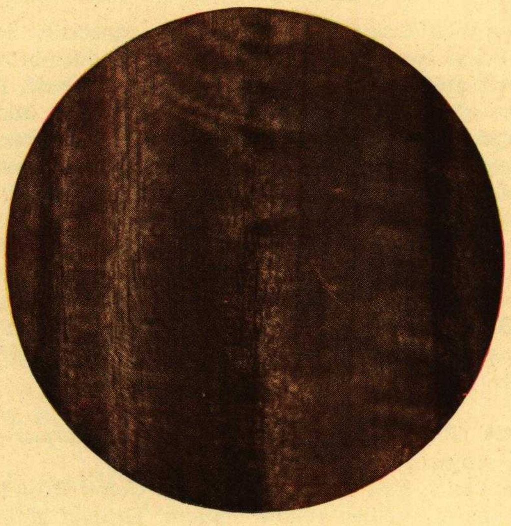
1. OAK, RED *(Quercus borealis,* Michx.*) (See Plate 135)*
Source: Throughout the eastern United States; especially in the Appalachians, Ohio, Kentucky. *Color:* Slightly redder tinge than white oak (though hard for an untrained eye to tell), and is more uniform in color. *Pattern:* Flake figure less prominent than white oak's. *Characteristics:* Slightly coarser grain, with large, rounded, *open* pores. A little easier to finish than white oak, though both are excellent. *Uses:* All the same purposes as white oak except water-tight containers.

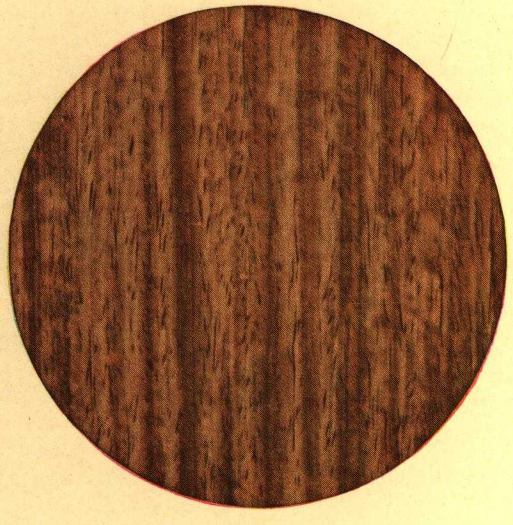
2. OAK, WHITE *(Quercus alba,* Linn.*) (See Plates 136, 137, 138, 139)*
Source: Entire eastern United States, especially produced in the Central States and down through the Appalachian region. *Color:* From light brown with a grayish tinge in the heartwood to shades of ochre in the sapwood. *Pattern:* More pronounced and longer rays than red oak, and more frequently rift-sawn for the comb-grain, pin-striped figure than red oak. Occasionally crotches, swirls and burls. *Characteristics:* Pores are angular and very numerous and filled with a glistening substance called tyloses, which makes this wood especially suitable for water-tight containers (barrel staves) and where water-resistance is required. Tannic acid in the wood protects it from fungi and insects. Closer grained than red oak. *Uses:* Nearly all common uses of hardwoods, and especially popular where strength and durability are required. Also for water-tight or water-resistant purposes.

OAK, AUSTRALIAN SILKY — See Lacewood

OAK, ENGLISH BROWN *(Quercus robur,* L.Q.; *Quercus sessiliflora,* Salisb.*)* — European Oak, Pollard Oak *(See Plate 134)*
Source: England. *Color:* Light tan to deep brown. *Pattern:* Black spots, sometimes creating an effect much like tortoise shell. *Characteristics:* Noticeable figure and grain character. *Uses:* Architectural woodwork; some in fine furniture. *Availability:* Veneer (quartered, sliced) — scarce. *Price Range:* Costly.

OAK, EUROPEAN *(Quercus robur,* L.Q.; *Quercus sessiliflora,* Salisb.*)*


140 — ORIENTALWOOD, FIGURED (close up)


141 — PADOUK, BURMA (close up)

European Oak is the trade name given Oak from various countries, all botanically the same as English Brown Oak but usually much lighter in color. Variations in color are due to differences in climate and soil. The wood is generally named from its origin and is known as Russian, German, Hungarian, French or Austrian Oak.

OAK, POLLARD — See Oak, English Brown

OAK, QUEENSLAND SILKY — See Lacewood

Oak, Russian *(Quercus robur,* L.Q.)
"Russian Oak is botanically the same as English Brown Oak but always is lighter in color due to the differences in climate and soil. There are also other varieties of the same wood from different countries known as German, Hungarian, French or Austrian Oak."

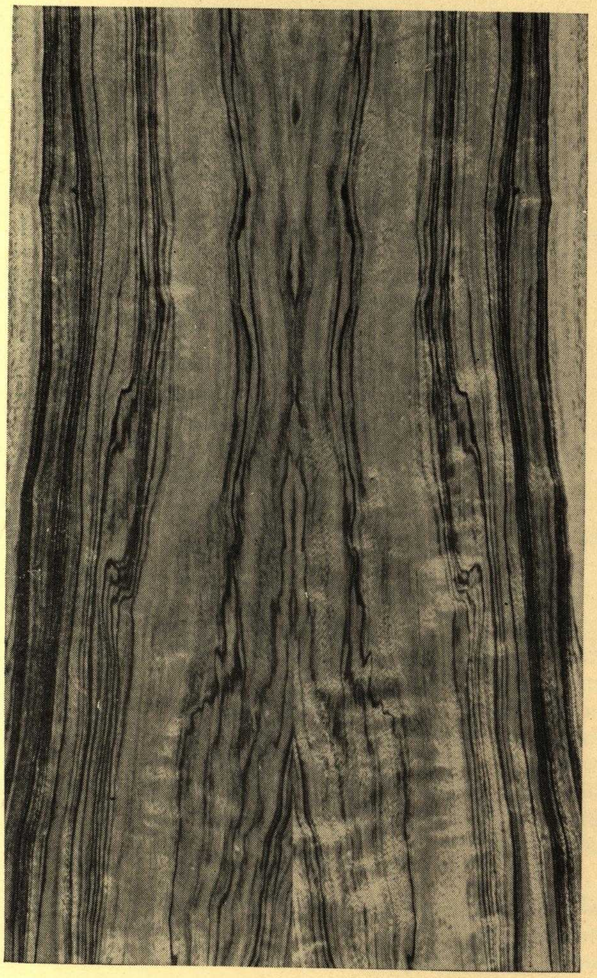
OAK, TASMANIAN — See Eucalyptus — Ash, Mountain

OBECHE — See Ayous

OBOBO — See Bosse

OFFRAM — See Limba

OHIA — See Celtis



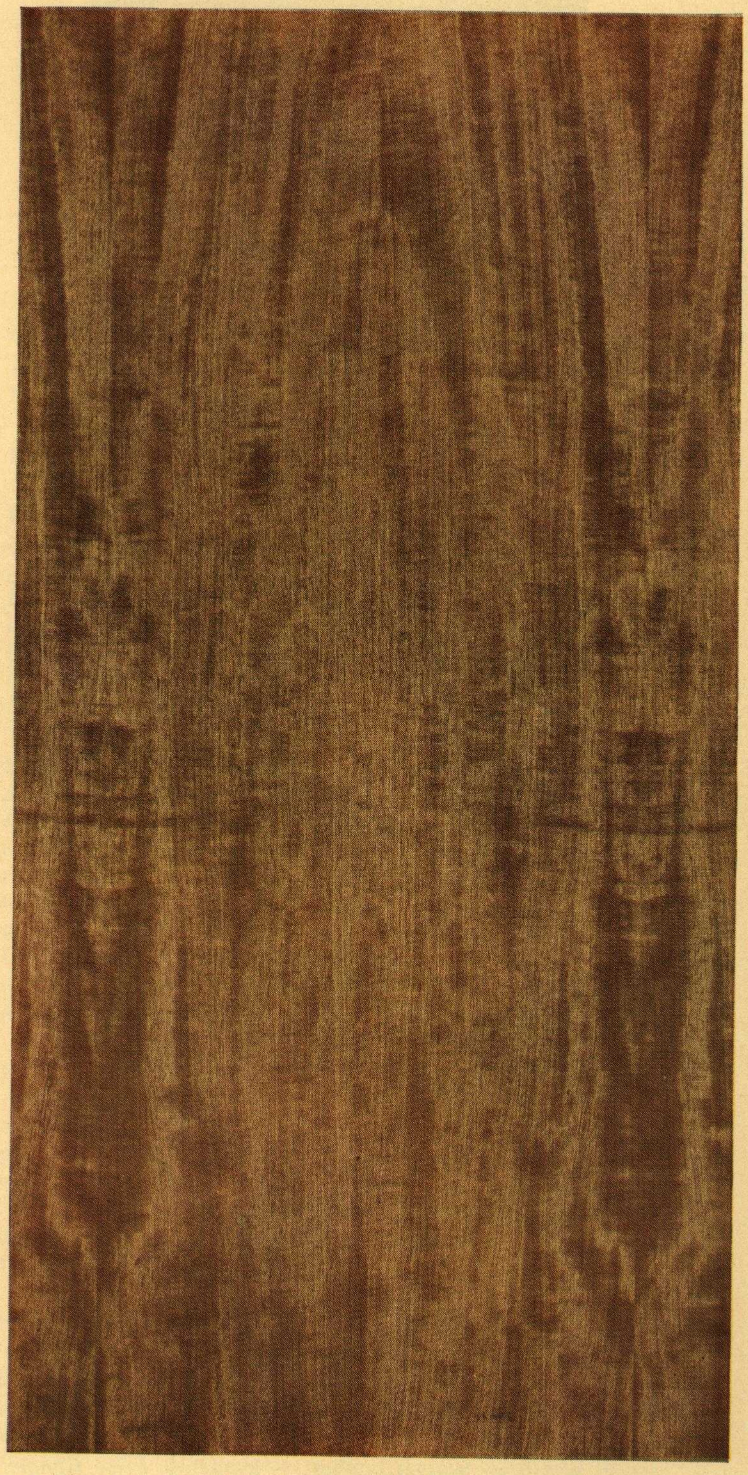
142 — PALDAO (2 pc.)

OJOCHE — See Capomo

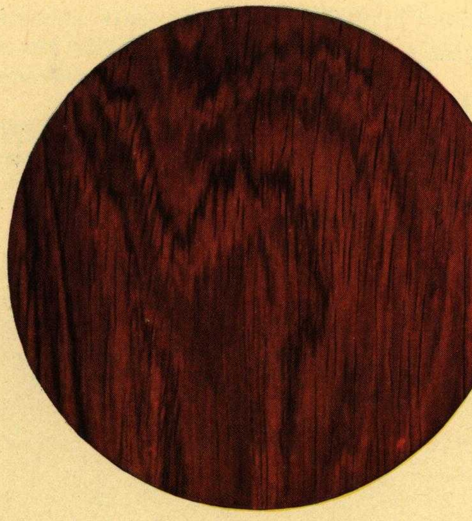
OKOUME — See Gaboon

OLIVE, ITALIAN *(Olea europaea,* Linn.)
Source: A native of southern Europe. *Color:* Yellowish-brown. *Pattern:* Usually burl. *Price Range:* Expensive.

Olivewood *(Fraxinus, spp.)*



143 — PRIMAVERA (2 pc.)



144 — ROSEWOOD, BRAZILIAN

OLON *(Fagara macophylla,* Engl.*)*
Source: Africa. *Color:* A yellowish wood of minor commercial importance.

OPEPE *(Sarcocephalus diderrichii,* De Wild.*)* — Abiache
Source: Africa — Southern Nigeria and the Gold Coast. *Color:* Gray-white to yellow-pink; heartwood nearly orange. *Pattern:* Somewhat like mahogany. *Characteristics:* Somewhat like mahogany. *Availability:* Plentiful. *Price Range:* Inexpensive.

ORIENTALWOOD *(Endiandra Palmerstoni,* C. T. White) — Australian Laurel, Australian Walnut, Oriental Walnut; formerly "Queensland Walnut." *(See Plate 140)*
Source: Australia. *Color:* Pinkish-gray to brown. *Pattern:* Somewhat like walnut but with dark stripes. *Characteristics:* Medium weight; turns and polishes well; firm to hard. *Uses:* Furniture; cabinetmaking. *Availability:* Veneer (quartered) — scarce. *Price Range:* Costly.

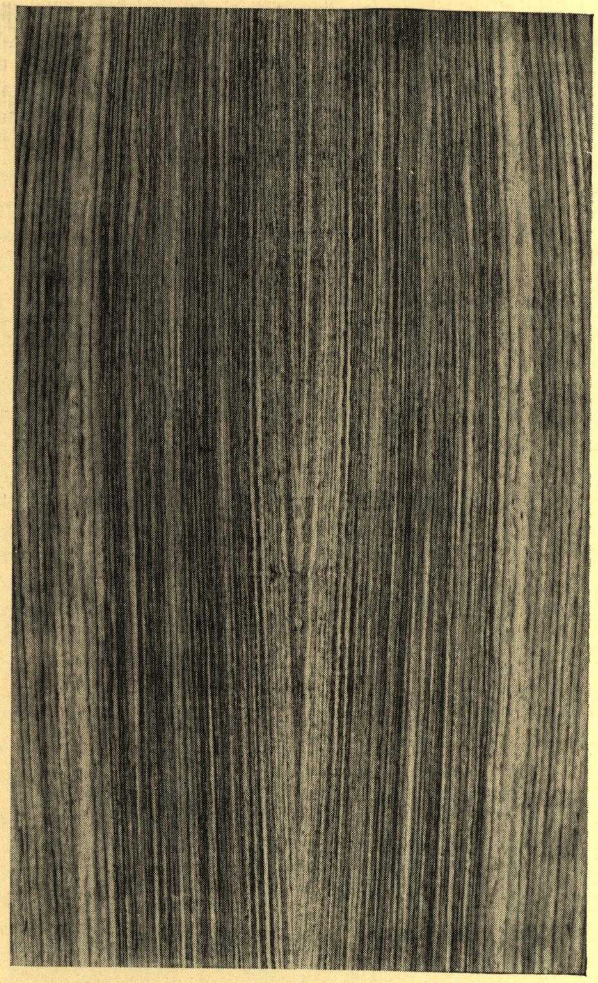
Orme — French for Elm

Oro *(Pahudia rhomboidea* (blco.) Prain.*)*

Osage Orange *(Maclura pomifera,* Bois d'Arc)
Source: Southwestern United States. *Color:* Greenish-yellow. *Pattern:* Seldom cut into lumber or veneers. *Characteristics:* A very close-grained wood somewhat like locust. Very hard, heavy, strong and resilient; comparatively inert to atmosphere changes. *Uses:* Wheels; archery bows; insulator pins; sucker-rod guides; dyewood; turnings and decorative novelties. *Availability:* Scarce. *Price Range:* Moderate where available.

PADAUK — Three species of Padauk, sometimes spelled Padouk. Padauk burls are sold under the names Maidon, Mai Padu and Madou.

PADAUK, AFRICAN *(Pterocarpus soyauxii,* Taub.*)* — Corail
Source: African West Coast. *Color:* Golden red. *Pattern:* Striped. *Uses:* General cabinetry. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.



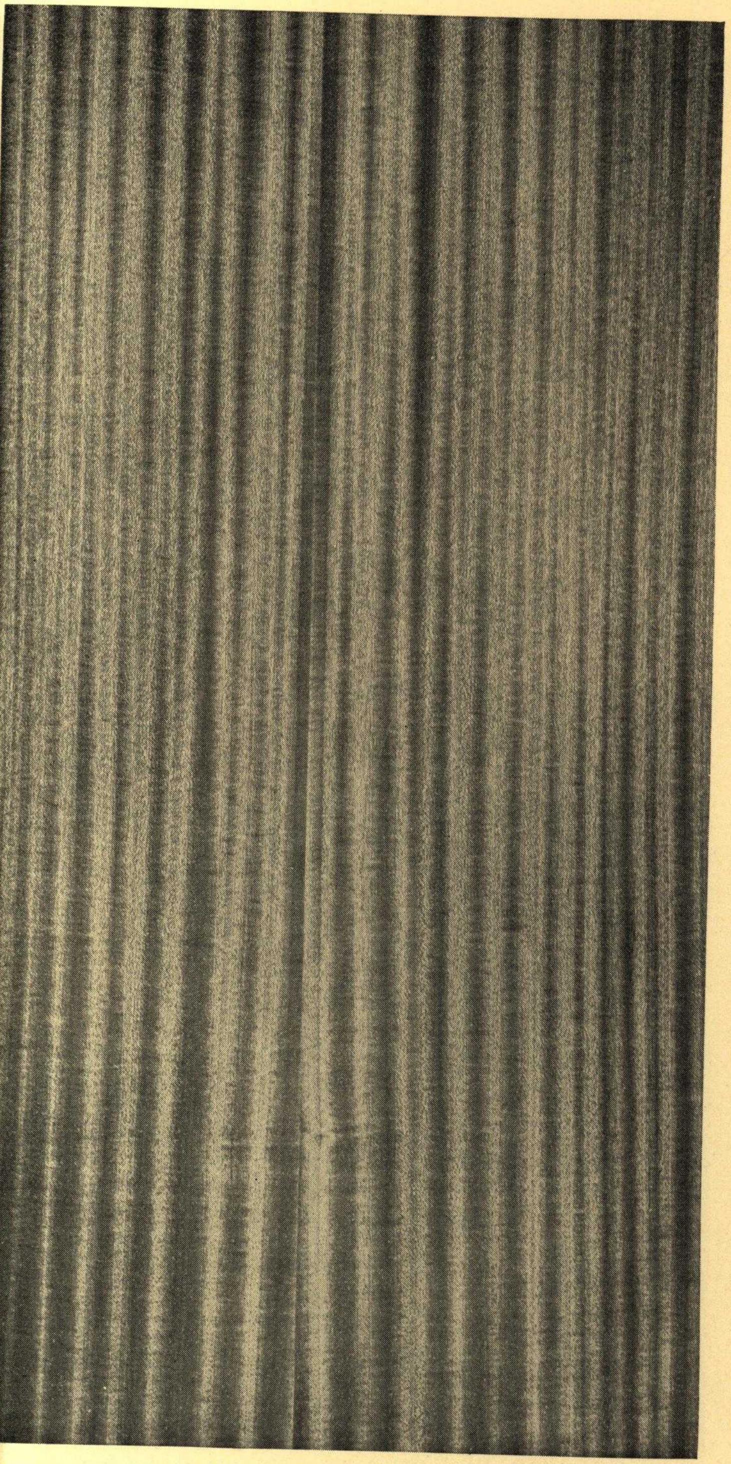
145 — ROSEWOOD, EAST INDIAN, QUARTERED (2 pc.)

PADAUK, ANDAMAN *(Pterocarpus dalbergioides,* Roxb.*)* — Vermilion
Source: Andaman Islands. *Color:* Golden brown to violet red; much variation. *Pattern:* Often handsome narrow stripes, with dark-colored veins. *Characteristics:* Alternate layers of hard and soft grain; pores are irregular in size and position, occasionally seen in duplicate and triplicate. *Uses:* Fine woodwork and furniture. *Availability:* Veneer (quartered, sliced) — scarce. *Price Range:* Costly.

Padauk, Brazilian — See Macawood

PADAUK, BURMA *(Pterocarpus macrocarpus,* Kurz.*)* — Vermilion *(See Plate 141)*
Source: Burma. *Color:* Yellow and gold-red with brown. *Pattern:* Interlocked grain, producing cross figure on quartered section. *Characteristics:* Hard firm texture; seasons well; pores are very irregular in size. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.

PALDAO *(Dracontomelum dao,* Merr. & Rolfe.*)* — Dao *(See Plate 142)*
Source: Philippines, Indo-China and East Indies. *Color:* Gray to reddish brown. *Pattern:* Varied grain effects usually with irregular stripes, some occasionally very dark. Occa-

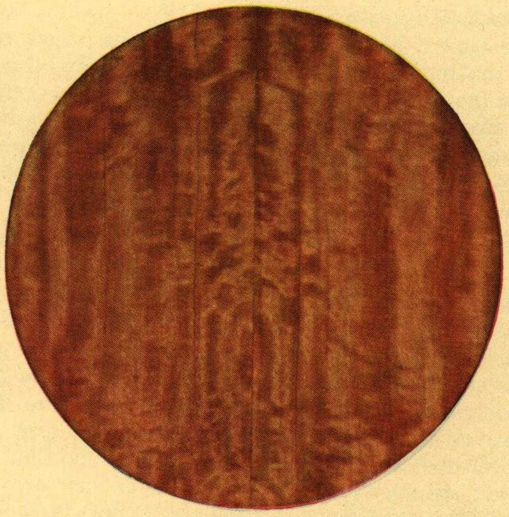


146 — SAPELE

sional crotch or swirl. *Characteristics:* Pores are large, partially plugged; fairly hard. *Uses:* Architectural woodwork and furniture. *Availability:* Veneer (quartered, half-round) — plentiful; lumber — available. *Price Range:* Medium.

PALO BLANCO — The trade name Palo Blanco given to woods from a number of different trees in Central and South America; Marupa, Robel and others. See Prima Vera

PALO MORADO — See Amaranth



147 — SATINWOOD, FIGURED (close up)

PALOSAPIS — See Bella Rosa

PAROTA — See Kelobra

Partridge Wood — See Macaya

PEARWOOD *(Pyrus Communis,* Linn.*)* — Pear Tree
Source: United States, Germany and France. *Color:* Rosy pink with shadings on light cream background. *Pattern:* Moderately distinct leafy grain, sometimes with mottle figure. *Characteristics:* Fine, close grain; pores are very fine, indistinct. *Uses:* Marquetry; furniture; mechanical and drawing instruments; saw handles and rulers. *Availability:* Veneer (sliced) — scarce. *Price Range:* Costly.

PECAN *(Carya illinoensis* (Wangenh.) K. Koch)
Source: Southern United States, East of Mississippi. *Color:* Heartwood — reddish brown with occasional darker streaks; sapwood — creamy white. *Pattern:* Quite distinct, because of pores that are larger than hickory or walnut, two species that belong to the same family. *Characteristics:* Close grained; hard; very heavy; and strong. *Uses:* Flooring and limited amounts of furniture, especially office chairs. *Availability:* Veneer (quartered, sliced) — plentiful; lumber — available. *Price Range:* Medium.

PEROBA, WHITE *(Paratecoma peroba,* Kuhl.*)* — Peroba Amarella, Peroba Branca
Source: Brazil. *Color:* Olive to golden. *Pattern:* Fine in grain. *Characteristics:* Not difficult to work and reported to be stronger than Teak. *Uses:* Structural work in South America and decorative woodwork and furniture when imported. *Availability:* Veneer (quartered, sliced) — scarce. *Price Range:* Costly.

PEROBA, RED *(Aspidosperma polyneuron,* Muell, Arg.*)* — Peroba Rosa, Palo Rosa
Source: Brazil. *Color:* Pale rose with dark streaks. *Pattern:* Dark streaks. Surface is not lustrous, usually flat sliced. *Characteristics:* Very durable; fairly hard and heavy; fine and even texture. *Availability:* Plentiful as veneer and lumber. *Price Range:* Medium.

Persimmon *(Diospyrus virginiana,* L.*)*
Source: United States. However, Diospyrus is one of four genera making up the Ebony family and are found in many parts of the world in warm, temperate and tropical climates. *Color:* Dark brown with black stripes. *Pattern:* An interesting, distinct grain. *Characteristics:* A hard wood with interlocking grain. *Uses:* As lumber is used for golf club heads and shutters. *Availability:* Seldom as veneers. *Price Range:* Costly.

PHILIPPINE HARDWOODS — The Philippine Islands are the source of a great variety of hardwoods, but a few of which are imported into the United States. The greatest volume comes from a group sold commercially as "Philippine Mahogany," although they are not related to the true mahoganies as is evidenced by the botanical names. Several fine hardwoods from the Philippine Islands and that part of the world are known and marketed under their own names such as Narra, Almon, Bella-Rosa, Sonora and Paldao. These are listed elsewhere alphabetically. Those classified and sold as Philippine Mahogany are quite varied in color and texture. They include the softer species of *Shorea* that are light colored to reddish-brown in color and the species of *Parashorea* and *Pentacme.* This group is divided into two classes as follows:

(1) **Red Lauan** *(Shorea negrosensis,* Foxw.*)*
Tanquile *(Shorea polysperma,* Merr*)*
Tiaong *(Shorea spp.)*

(2) **Almon** *(Shorea almon, Foxw.)*
White Lauan *(Pentacme contorta, Merr)*
Bagtikan *(Parashorea picata, Brandis)*
Mayapis *(Shorea squamata, Dyer)*

Characteristics: In general, these woods, as compared with the Tropical American and African Mahoganies, are more coarse grained and stringy. They require a greater amount of sanding to produce a finishing surface and are much less stable under atmospheric (moisture) changes. (See physical properties chart on pages 10, 11 and 12.)

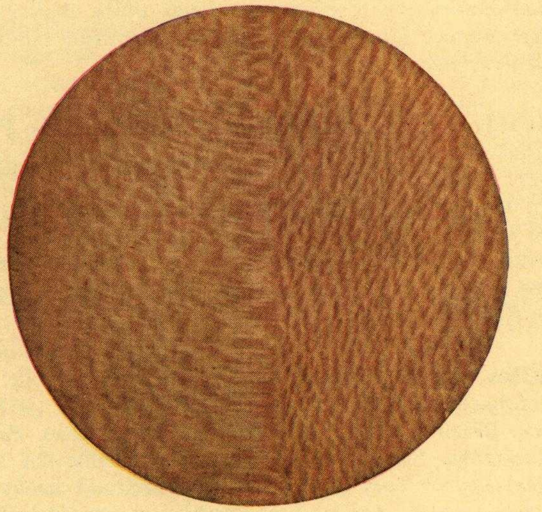
1. LAUAN, RED *(Shorea negrosensis, Foxw.)* — Also called "Philippine Mahogany." Sold as Philippine hardwoods. *Source:* Philippine Islands. *Color:* Red to brown. *Pattern:* Ribbon stripe; interlocking grain. *Characteristics:* Coarse texture; large pores. *Uses:* Furniture; doors and cabinetmaking. *Availability:* Veneer (quartered, sliced, rotary) — abundant; lumber — available. *Price Range:* Medium to inexpensive. *(See Plate 125)*

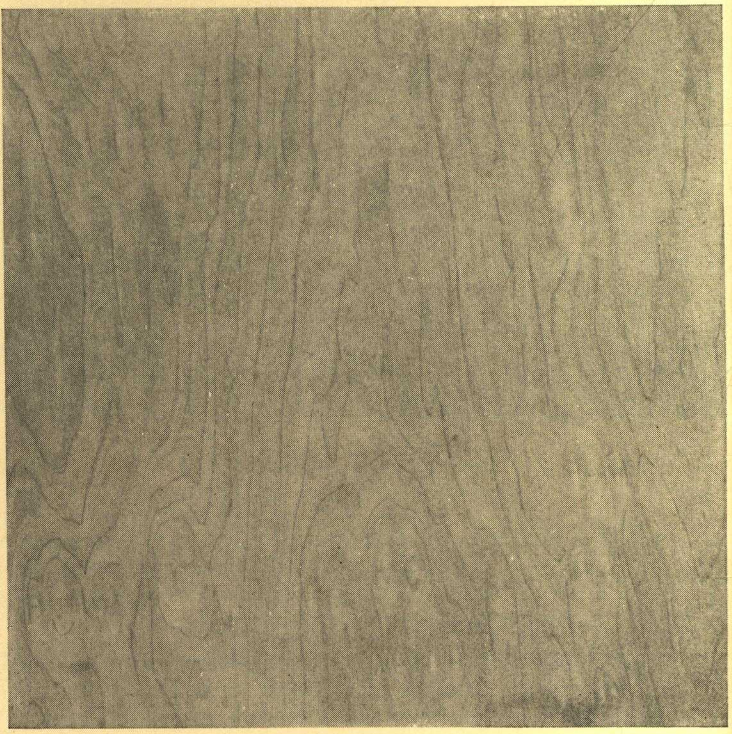
2. LAUAN, WHITE *(Pentacme contorta, Merr) (See Plate 126)*
Source: Philippines. *Color:* Light to greyish-brown to light reddish-brown. *Pattern:* Crossed grain. *Characteristics:* Medium heavy; rather coarse texture. *Uses:* Furniture; cabinet work. *Availability:* Less plentiful than Red Lauan. *Price Range:* Inexpensive to low.

3. TANGUILE *(Shorea polysperma,* Merr.*)* — See Philippine Hardwoods
Source: Widely scattered over Philippine Islands, especially at higher altitudes. *Color:* Dark reddish-brown. *Pattern:* When quartered shows distinct ribbon stripe. *Characteristics:* Moderately fine grain; intermediate to fine pores; moderately hard (as compared with other associated species); fairly light weight. *Uses:* General. *Availability:* Abundant. *Price Range:* Low to inexpensive.

PINE, KNOTTY *(Pinus monticola,* D. Don.*)* — Idaho White Pine (A softwood)
Source: Idaho, Washington, Montana. *Color:* Like Northern White. (Light brown or red.) *Pattern:* Knotty. *Characteristics:* Softwood but occasionally used as cabinet wood. Light; soft; not strong; close, straight-grained. *Uses:* Used in construction and interior finish of buildings; some furniture. *Availability:* Veneer (sliced) — plentiful; lumber — plentiful. *Price Range:* Medium.

PINKWOOD, BRAZILIAN — See Tulipwood


148 — SYCAMORE, AMERICAN, QUARTERED (close up)


149 — TUPELO

Piquia Peroba *(Aspidosperma tomentosum,* Mart*)* — A Brazilian wood, somewhat like boxwood, except with dark streaks. Very rarely imported. However, Peroba *(Aspidosperma peroba)* is a general utility wood in Brazil.

PLANE, AMERICAN — See Sycamore, American

POLLARD OAK — See Oak, English Brown

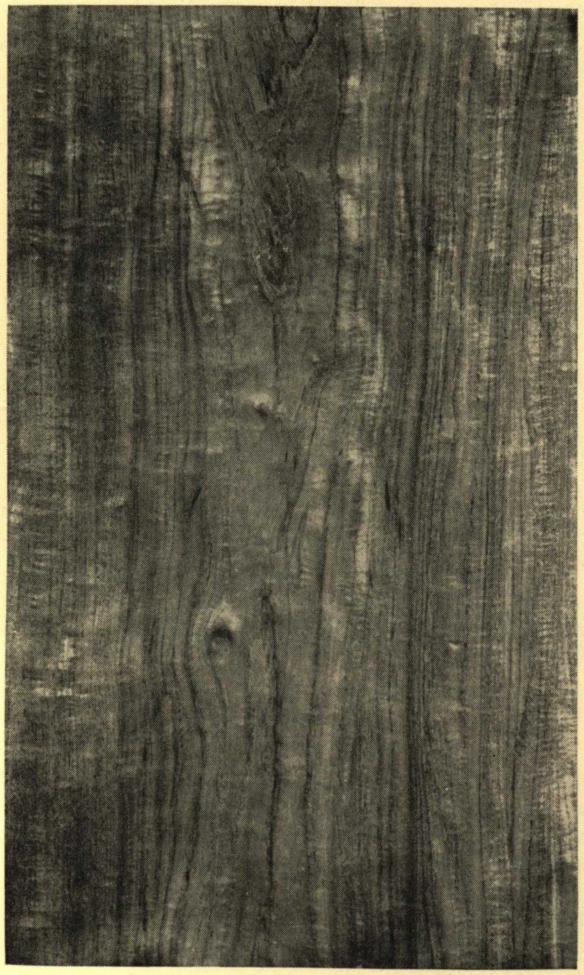
Poplar, Balsam *(Populus balsamifera,* Linnaeus*)* — Balm of Gilead. One of many species of *Populus.* Ranges in northern United States and Canada not to be confused with Poplar veneer or lumber of commerce which is *Liriodendron tulipifera.*

POPLAR, BAY — See Gum, Tupelo

POPLAR, SILVER — See Aspen

POPLAR, YELLOW — See Yellow Poplar

Popple *(Populus tremuloides,* Michx., Trembling or quaking Aspen; *Populus grandidentata,* Michx., Large tooth Aspen*)*



150 — TEAK

PRIMAVERA *(Cybistax Donnell-smithii,* Rose*)* — Durango, Palo Blanco, San Juan. Sometimes misnamed "White Mahogany.") *(See Plate 143)*

Source: From Central Mexico, south through Guatemala and Honduras into Salvador. (Other species of Tabebuia found in northern South America.) *Color:* Yellow white to yellow brown. *Pattern:* Straight grain. *Characteristics:* Odorless and tasteless; medium to coarse textured; straight to somewhat striped grained; moderately light in weight. *Uses:* A fine, general-use cabinetwood. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.

Princewood — See Canaletta

PURPLEHEART — See Amaranth

QUEENSLAND MAPLE — See Maple, Australian

Rauli *(Nothofagus Procera* P.&E.*)* — A Chilean wood having many of the properties and uses of beech. Dull brown to bright cherry red. Widely used in Chile but very rarely imported into the United States.

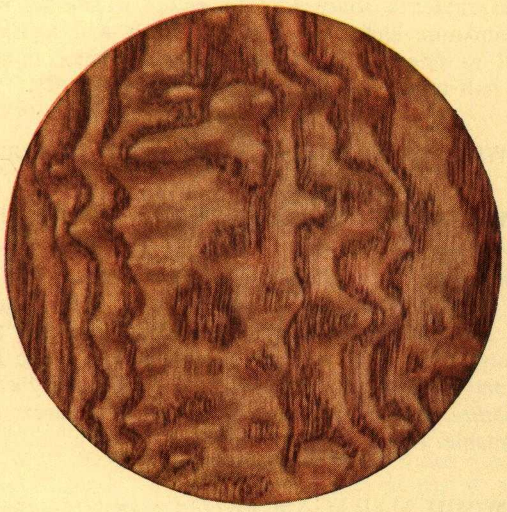
REDWOOD, BURL *(Sequoia sempervirens* (Lam.), Endlicher*)* — Big Tree
Source: California — Northern coastal region. *Color:* Pink to deep red heartwood. *Pattern:* Clusters of eyes (burls). *Characteristics:* Soft; light; close-grained; heartwood exceptionally durable; easily worked, except somewhat splintery. *Uses:* Decorative areas of cabinetry. *Availability:* Veneer (half-round) — scarce; lumber — abundant. *Price Range:* Costly as burl veneers.

Roble *(Tabebuia pentaphylla* (L.) Hemsl.*)*

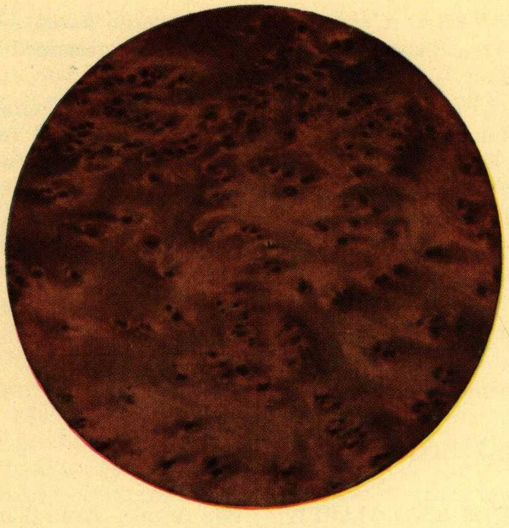
ROSEWOOD, AFRICAN — See Bubinga

Rosewood, Australian — See Mahogany, Rose

ROSEWOOD, BAHIA — See Rosewood, Brazilian



151 — TAMO (close up)



152 — THUYA, BURL (close up)

ROSEWOOD, BOMBAY — See Rosewood, East Indian

ROSEWOOD, BRAZILIAN *(Dalbergia nigra,* Fr. Allem.) — Jacaranda, Rio Rosewood, Bahia Rosewood *(See Plate 144)*

Source: Brazil. *Color:* Various shades of dark brown — chocolate to violet; conspicuous black streaks. *Pattern:* Streaks of dark brown or black pigment lines. *Characteristics:* Rather large pores are exceedingly irregular both in size and position. *Uses:* Widely used as pianos in first quarter of 20th Century. *Availability:* Veneer (quartered, sliced, half-round, rotary)— scarce; lumber — available. *Price Range:* Costly.

ROSEWOOD, EAST INDIAN *(Dalbergia latifolia,* Roxb.) — Bombay Rosewood, Blackwood (locally), Malobar *(See Plate 145)*

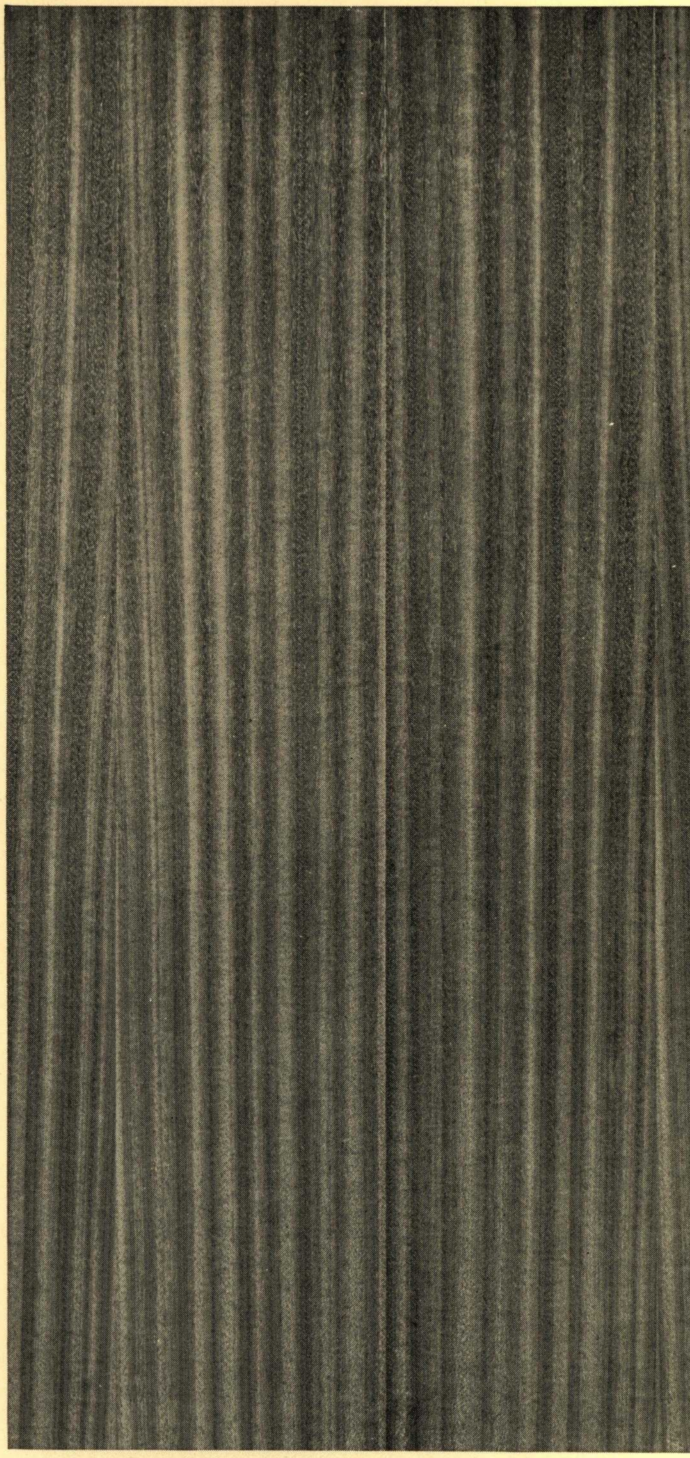
Source: Southern India and Ceylon. *Color:* Dark purple to ebony; streaks of red or yellow. *Pattern:* Small to medium pores in wavy lines; exceedingly fine rays; occasionally crotches and swirls. *Characteristics:* Stand up exceptionally well under all conditions; texture is close, firm, and hard; requires rather a sharp tool to secure a smooth surface; very moderate shrinkage. *Uses:* Pattern making (locally), as well as fine furniture. *Availability:* Veneer (quartered, sliced, half-round) — scarce. *Price Range:* Costly.

ROSEWOOD, FRENCH — See Rosewood, Madagascar

ROSEWOOD, HONDURAS *(Dalbergia Stevonsonii,* Standl.)

Source: Central America. *Color:* Lighter than Brazilian; pinkish brown or purplish, streaked with darker and lighter bands. *Pattern:* Streaks. *Characteristics:* Very hard and heavy; not difficult to work, but coarse textured; finishes smoothly; does not take high natural polish. *Uses:* Percussion bars for musical instruments; pianos; cutlery cabinets. *Availability:* Veneer (quartered, sliced) — scarce; lumber — available. *Price Range:* Costly.

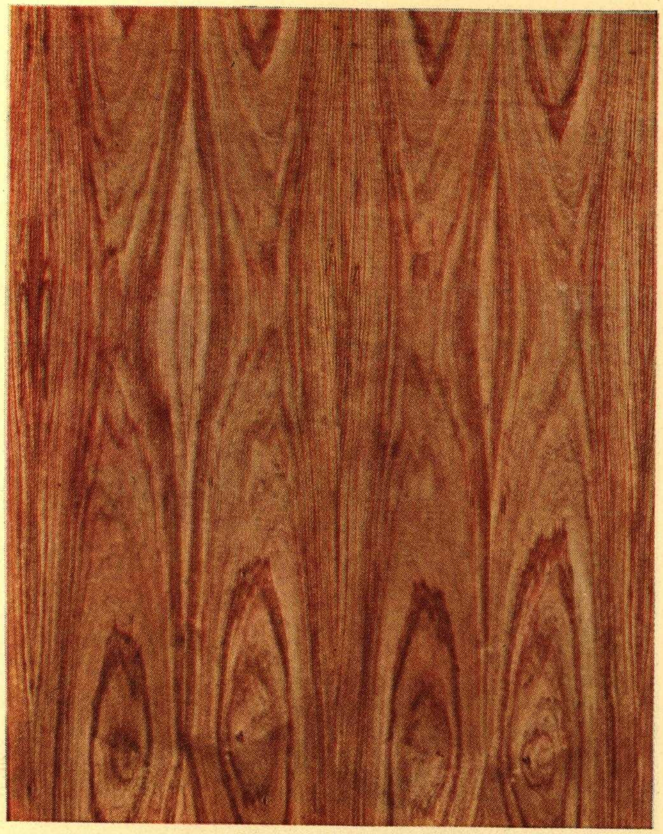
ROSEWOOD, MADAGASCAR *(Dalbergia Greveana,* Baill.) — Madagascar Palisander, French Rosewood



153 — TIGERWOOD (4 pc.)

Source: Madagascar. *Color:* Dark to light rose-pink. *Pattern:* Pronounced lines of darker red shades. *Characteristics:* Very hard. *Availability:* Veneer — scarce. *Price Range:* Costly.

ROSEWOOD, MEXICAN — Probably *(Dalbergia Stevensonii).* However, there are about fifteen different species of Rosewood (Dalbergia) that produce good quality timber out of 250 species of trees and shrubs in this group.



154 — TULIPWOOD (4 pc.)

SABICU *(Lysiloma sabicu,* Bth.*)*
Source: Central America. *Color:* Pink to dark red and darker. *Characteristics:* Hard and moderately heavy; low luster. Lumber must be dried with care. *Availability:* Veneer — scarce; lumber — available. *Price Range:* Inexpensive.

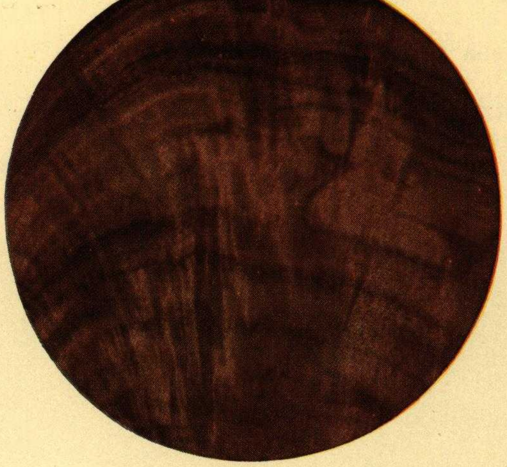
SAMARA* — See Gaboon. Rotary cut, reddish-brown hardwood from French Equatorial Africa. Characterized by large swirly grain pattern. *Registered U. S. Patent Office.

Santa Maria *(Calophyllum brasiliense, Comb.)*

SAPELE *(Entandrophragma cylindricum,* Sprague; *Guarea Thompsonii,* K.*)* — Aboudikrou, Sipo, Tiama *(See Plate 146)*
Source: African Ivory Coast, Nigeria. *Color:* Dark red-brown. *Pattern:* Stripe and bee's wing. *Characteristics:* Considerable variation in grain; light portions of stripes lustrous; works fairly well with hand and machine tools; tough; harder and heavier than African Mahogany. *Uses:* Veneers for furniture; cabinet work; interior decoration. *Availability:* Veneer (quartered) — plentiful; lumber — available. *Price Range:* Medium.

SAPELE, IVORY COAST — See Sapele

Sassafras *(Sassafras albidum,* (Nutt.) nees.*)*
Source: Most of United States east of Rockies. *Color:* Pale brown. *Pattern:* Somewhat like ash. *Characteristics:* Pores and general grain about like ash or hackberry but much softer. One of the few soft hardwoods with strong interesting grain character. *Availability:* As lumber. Usually only grows to shrub size. *Price Range:* Medium.



155 — WALNUT, CROTCH (close up)

Satinee *(Brosimum paraense,* Huber.*)*

Satinwood, Brazilian *(Euxylophora paraensis,* Huber.*)*

SATINWOOD, CEYLON *(Chloroxylon swietenia,* D.C.*)* — East Indian Satinwood *(See Plate 147)*
Source: Ceylon and southern India. *Color:* Pale gold. *Pattern:* Rippled, straight stripe; bee's wing mottled. *Characteristics:* Hard; dense; interlocking grain; inclined to check. *Uses:* Furniture. Came into use following wide use of East Indian Satinwood. *Availability:* Veneer (quartered, sliced, half-round) — rare; lumber — rare. *Price Range:* Costly.

SATINWOOD, EAST INDIAN — See Satinwood, Ceylon

SATINWOOD, SAN DOMINGAN — See Satinwood, West Indian

SATINWOOD, WEST INDIAN *(Zanthoxylum flavum,* Vahl.*)* — San Domingan Satinwood
Source: Puerto Rico, British Honduras. *Color:* Creamy golden yellow. *Pattern:* Wavy grain. *Characteristics:* Fine grained; hard and quite heavy; works well with most tools. *Uses:* Furniture; marquetry; inlaying; turnery. *Availability:* Veneer (sliced) — scarce; lumber — available. *Price Range:* Costly.

SELANO — See Lacewood

Shittum Wood *(Acacia seyal)*

Silk Cotton Tree — See Ceiba

SILKY OAK — See Lacewood

SINORA — See Sonora

SIPO — See Sapele

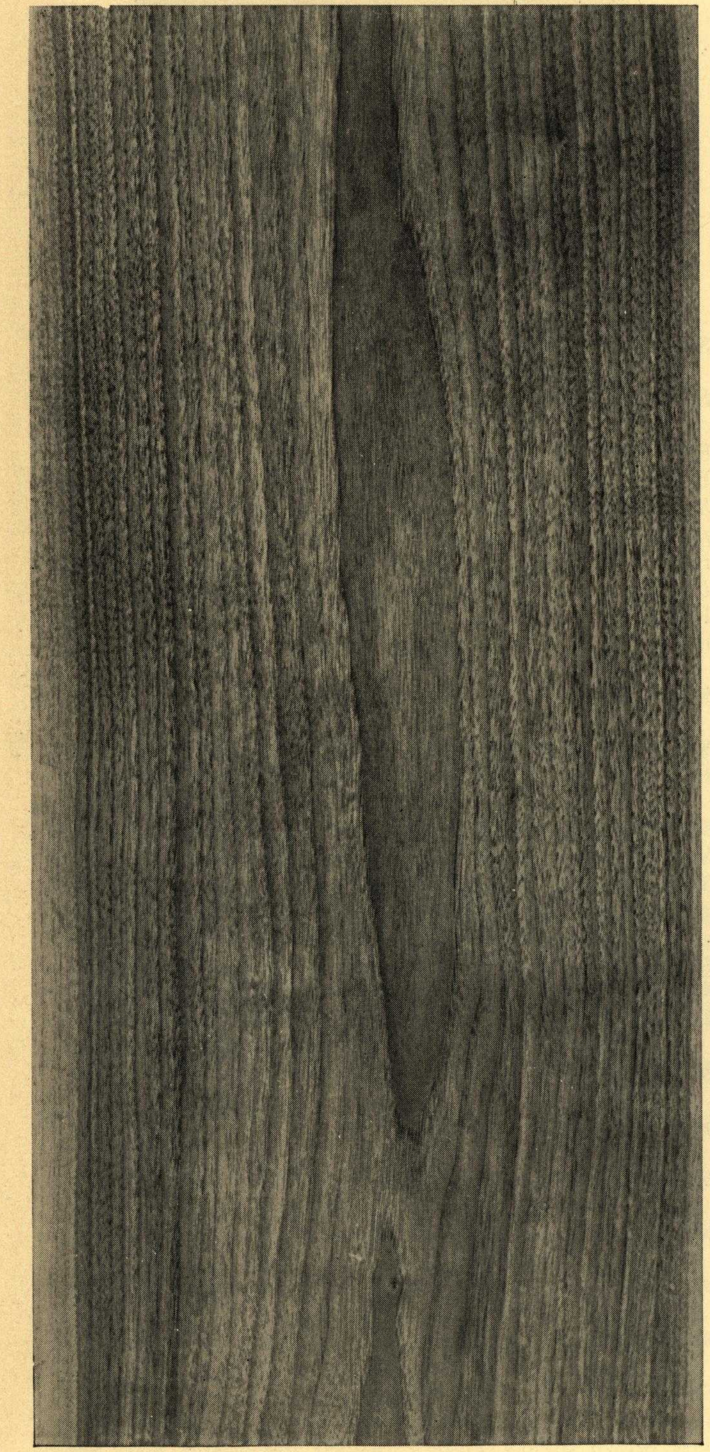
SISSO *(Dalbergia sissoo,* Roxb.*)*
Source: India. *Color:* Rich, warm brown. Sometimes with dark brown streaks. *Pattern:* Striped and mottle. Rays are fine, numerous and parallel. *Characteristics:* Firm, hard and compact texture; very strong and durable. *Uses:* Furniture;

parquet flooring. Highly regarded in India for fine, delicate earrings. *Availability:* Rare. *Price Range:* Costly.

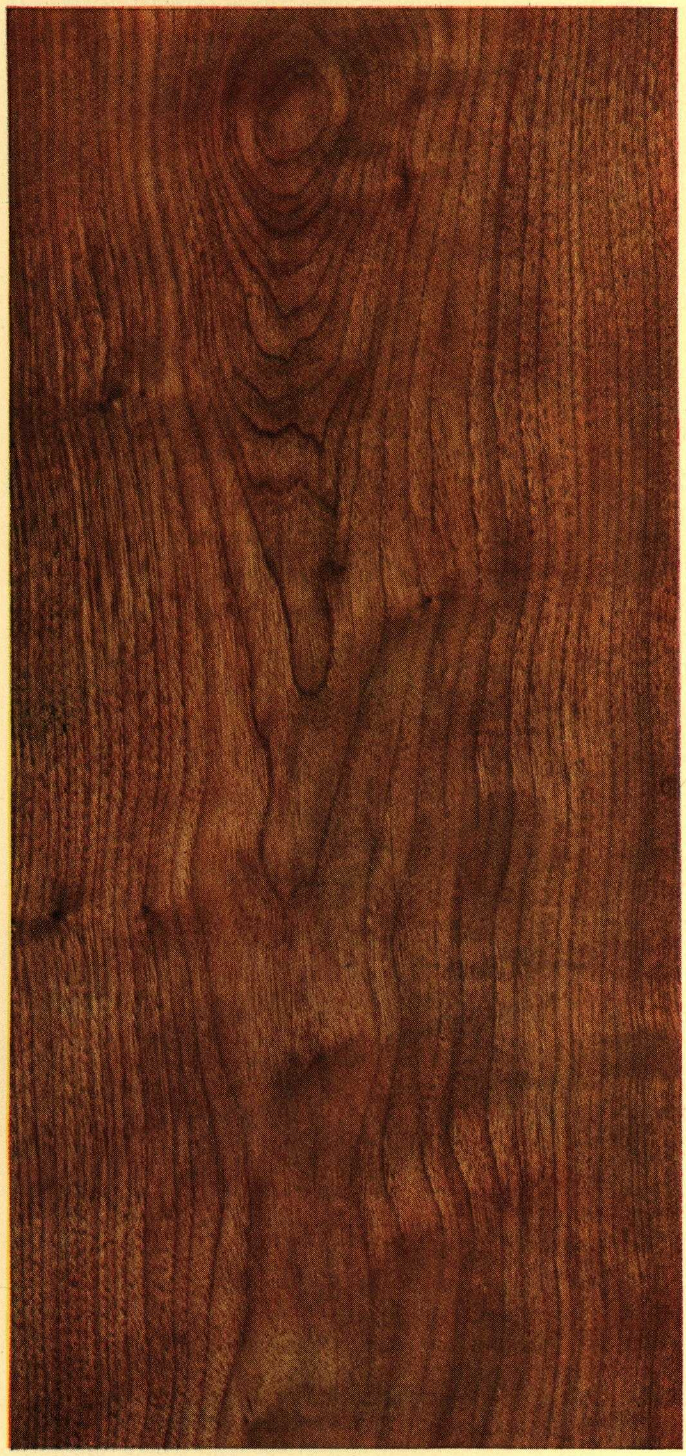
Snakewood *(Piratinera guianensis,* Aubl.*)*

SONORA *(Shorea philippinensis)* — Manggasinoro, sometimes spelled Sinora
Source: Philippines. *Color:* Yellow white to pale brown. *Pattern:* Medium fine texture with grain-cross like almon. *Characteristics:* Hard and heavy. *Availability:* Veneer (quartered) — plentiful. *Price Range:* Medium.

Sucupira *(Bowdichia spp.)* — *Acapa, Amoteak*
Source: Brazil and Venezuela. *Color:* Deep chocolate brown. Veneer lustrous; sapwood nearly white. *Pattern:* Conspicuous fine stripes of lighter brown. *Characteristics:* Very



2 — WALNUT, PLAIN SLICED, NARROW HEART



9 — WALNUT, PLAIN SLICED, WIDE HEART, DAPPLED, STAINED, FILLED, WARM BROWN FINISH

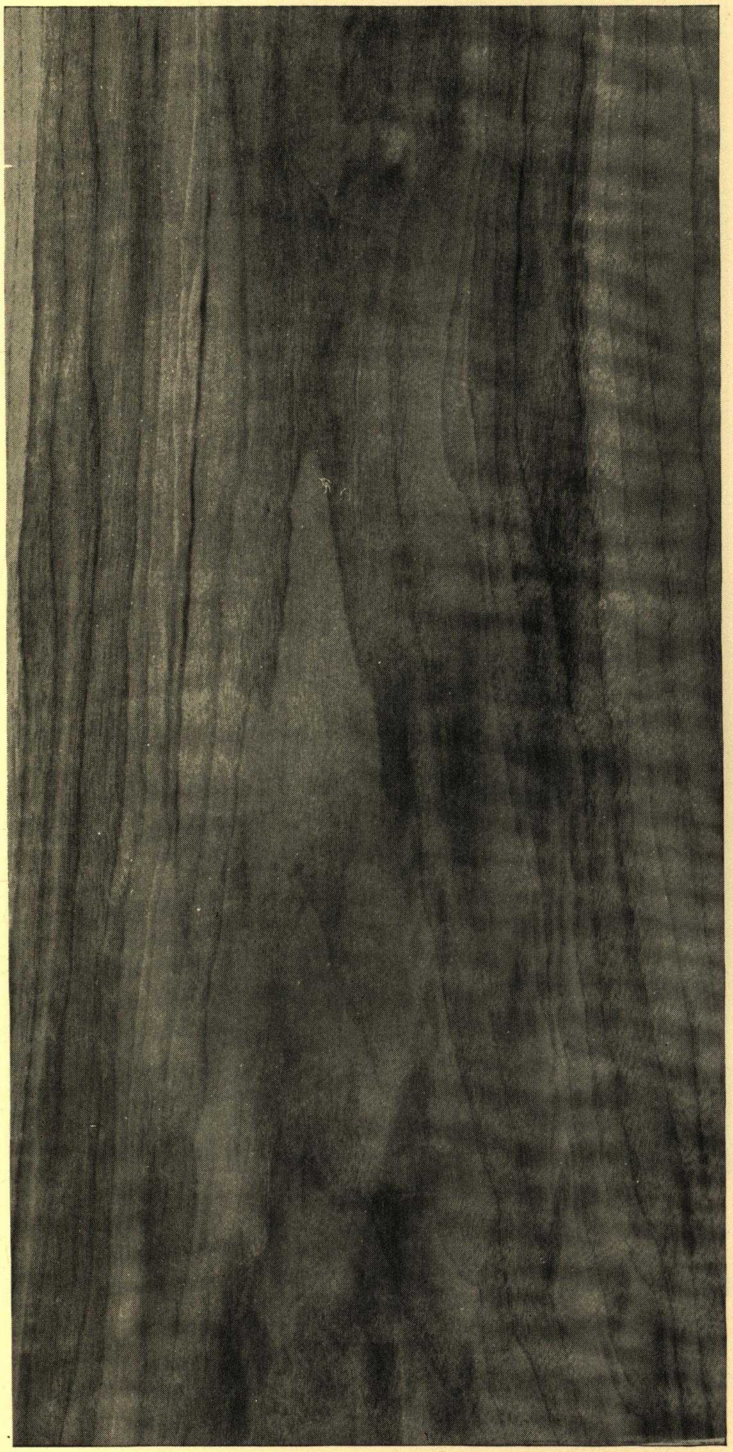
dense; hard and heavy; often wavy line; coarse texture. *Uses:* Used by natives for structural purposes. *Availability:* Rare. *Price Range:* Inexpensive.

SUGARBERRY — See Hackberry

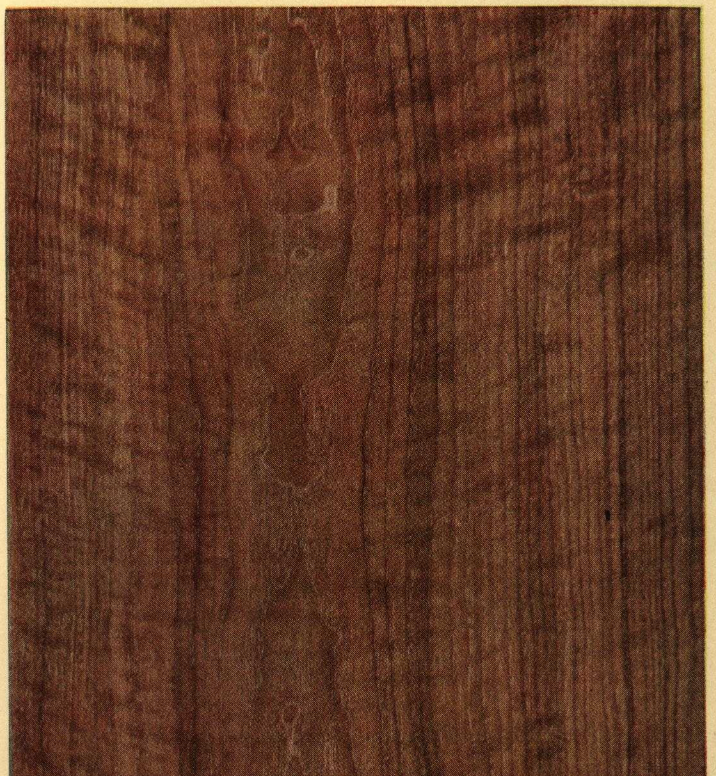
SWEET BAY — See Laurel

SYCAMORE, AMERICAN *(Platanus occidentalis,* Linn.*)* — Buttonwood, Plane Tree *(See Plate 148)* *Source:* Maine to Central West and the Gulf. *Color:* Pale reddish-brown. *Pattern:* Flaky on quartered grain due to conspicuous, wide rays. *Characteristics:* Grain is tough, elastic and hard. *Uses:* Lumber often used as drawer sides. *Availability:* Veneer (quartered, sliced, rotary) — plentiful although not commonly cut; lumber — available. *Price Range:* Inexpensive.

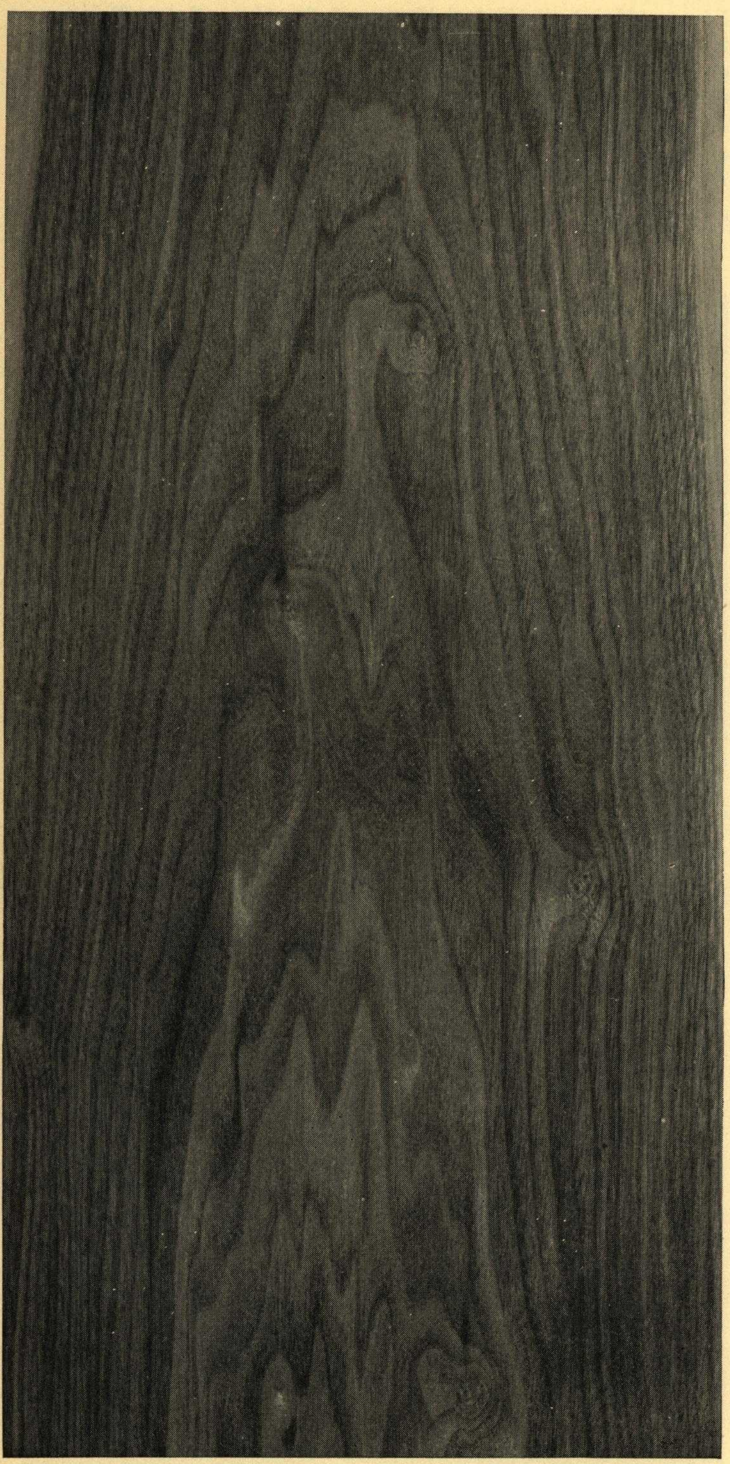
SYCAMORE, ENGLISH — See Harewood



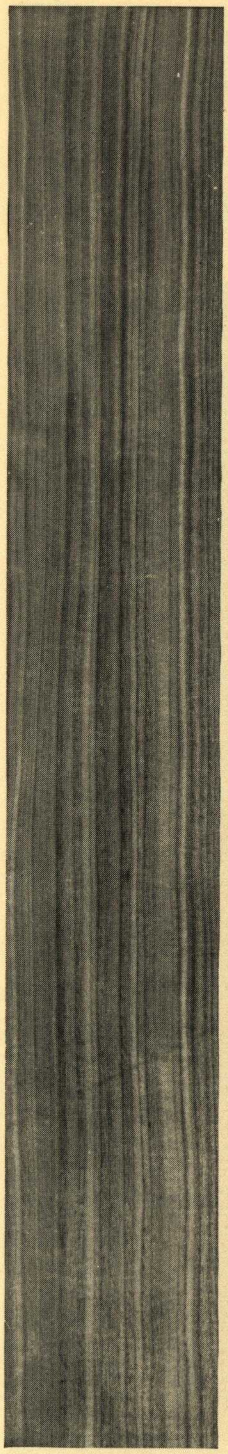
11 — WALNUT, SEMI-FIGURED SLICED, WILD HEART



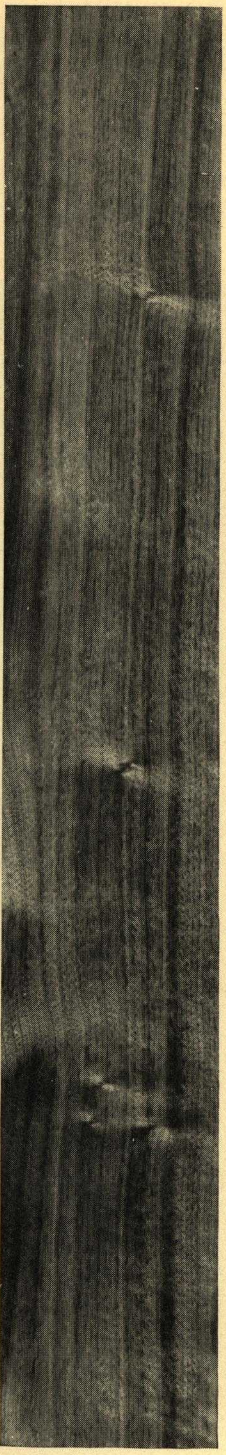
14 — WALNUT, FIGURED SLICED, FILLED, GRAY TONE FINISH



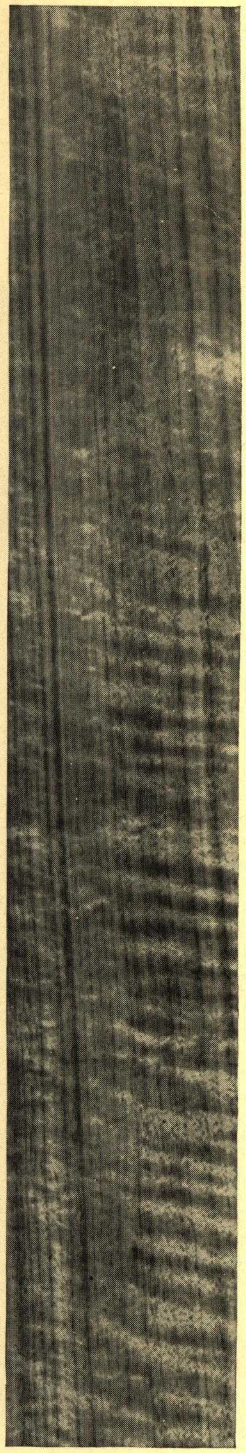
18 — WALNUT, PLAIN HALF ROUND, DAPPLED



23 — WALNUT, PLAIN QUARTERED, STRIPY AND BROAD CHARACTER



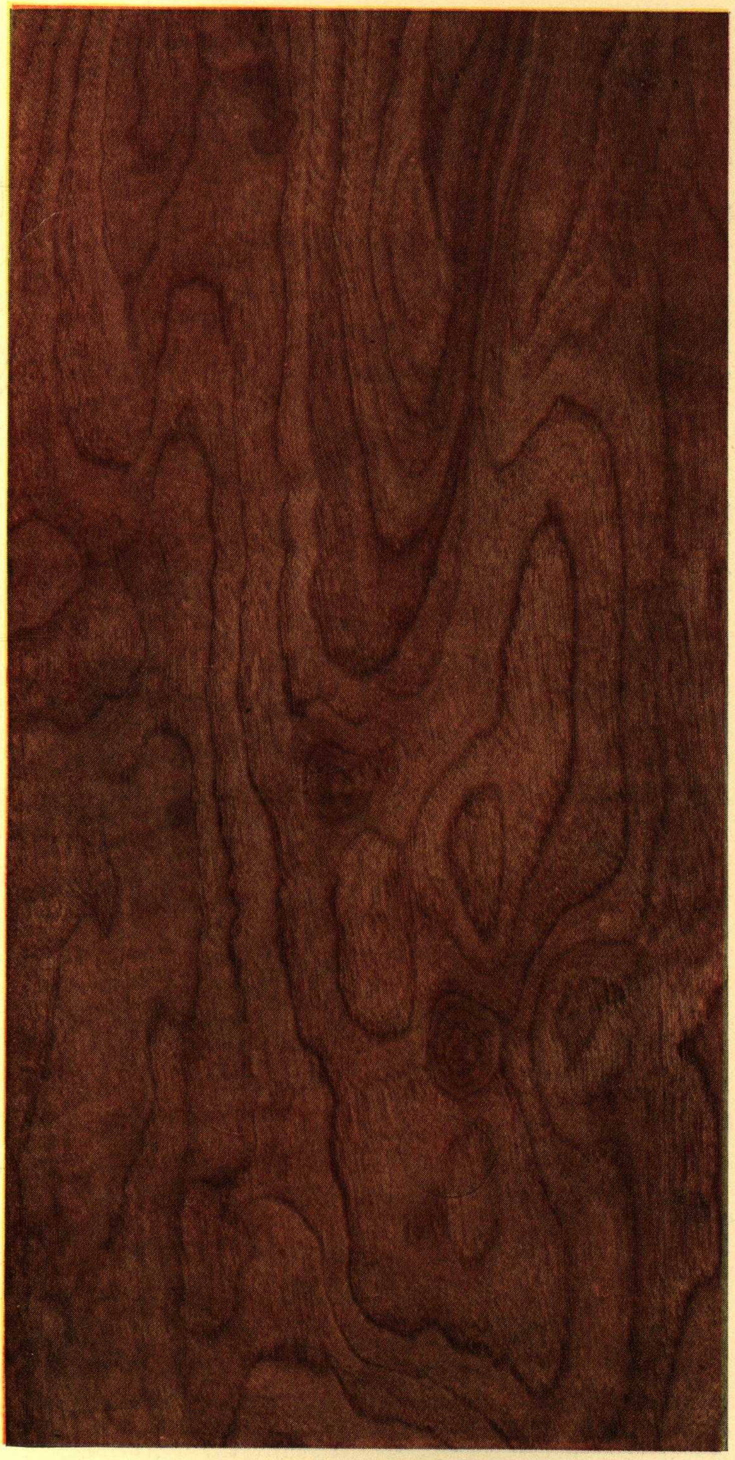
24 — WALNUT, PLAIN QUARTERED, DAPPLED



26 — WALNUT SEMI-FIGURED, QUARTERED, STRIPY

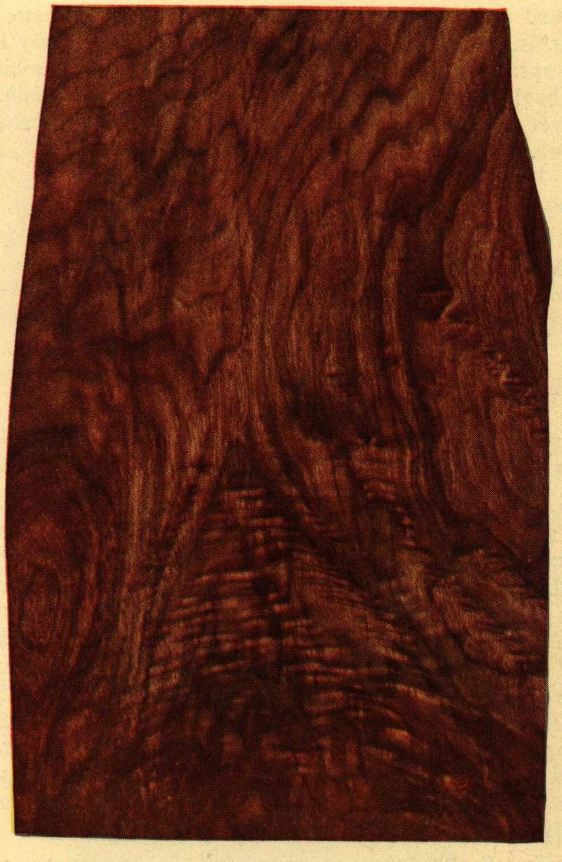
SYCOMORE — French for Sycamore
TABASARA — See Cativo
TAMO — See Ash, Japanese *(See Plate 151)*
TEAK, AFRICAN — See Iroko
TEAK *(Tectona grandis,* L.F.*)* — Burma Teak, Rangoon Teak *(See Plate 150)*

Source: Burma, Java, East India, French Indo-China. *Color:* Tawny yellow to dark brown, often with lighter streaks. *Pattern:* A great deal like walnut, sometimes mottled and fiddleback. *Characteristics:* Strong; tough; oily. Except for oiliness, much like walnut. *Uses:* Paneling; furniture; floors; ship decking. *Availability:* Veneer (quartered, sliced) — plentiful; lumber — available. *Price Range:* Costly.



38 — WALNUT, PLAIN ROTARY, COLONIAL BROWN, DULL LACQUER FINISH

THUYA BURL *(Tetraclinis articulata,* Masters) *(See Plate 152)*
Source: Atlas Mountains, Algeria. *Color:* Yellowish-brown, red. *Pattern:* Twisted curls and knots; burls. *Characteristics:* Much like our Eastern Arborvitae *(Thuya occidentalis)* except produced only as burls. Similar to redwood burls without such dark centers. *Uses:* Highly decorative areas of cabinetry. *Availability:* Veneer (half-round) — scarce. *Price Range:* Costly.



35 — WALNUT, STUMPWOOD, MILD FIGURE, STAINED, FILLED, "PIANO TYPE" FINISH

TIAMA — See Sapele

TIGERWOOD *(Lovoa klaineana,* Pierre) — Congowood — often misnamed African "Walnut," Benin Walnut and Nigerian Golden "Walnut." *(See Plate 153)*
Source: West Africa. *Color:* Gray brown to gold with black streaks. *Pattern:* Ribbon stripe pronounced. *Characteristics:* Easily worked. Transverse grain shows irregularly-sized, scattered pores. *Uses:* Furniture; paneling. *Availability:* Veneer (quartered) — plentiful; lumber — available. *Price Range:* Medium.

TOLA *(Pterygopodium oxyphyllum,* Harms.) Tola is also occasionally used in referring to Agba or White Tola
Source: Portugese Africa and Southern Nigeria. *Characteristics:* Much like Agba. However, exudes a cedar-scented gum, pale yellow in color. *Availability:* Scarce. *Price Range:* Inexpensive.

TOOG
Source: Philippines. *Color:* Medium brown to faint purple. *Pattern:* Quartered striped, usually light with dark stripes. *Characteristics:* Intermediate to large pores. *Availability:* Scarce. *Price Range:* Inexpensive to moderate.

TULIPTREE — See Yellow Poplar

TULIPWOOD *(Dalbergia spp.)* — Boise De Rose, Brazilian Pinkwood *(See Plate 154)*
Source: Northeastern Brazil. *Color:* Light background regularly streaked with red and yellow. *Pattern:* Annual growth

marked by dark rings. Rays are irregular, fine. *Characteristics:* In line of the concentric layers, pores are fairly large and open with numerous, very small pores in the remainder of the layer. *Uses:* Inlay, turnery, bandings. *Availability:* Veneer (sliced) — scarce; lumber — available. *Price Range:* Costly.

TUPELO — See Gum, Tupelo

VERMILION — See Padauk, Burma

VIOLETWOOD — See Amaranth and Kingwood

WALNUT, AFRICAN — See Tigerwood

WALNUT, AMERICAN *(Juglans nigra,* Linn.*) (See Plates on pages 49, 50, 51, 52 and 53)*
Source: While walnut grows throughout the United States and southern Canada, its commercial range is confined largely to some fifteen Central States. *Color:* Light gray-brown to dark purplish-brown. *Pattern:* Plain to highly figured. This one species produces a greater variety of figure types than any other, approached only by mahogany. Longwood (flat cut; half-round; quarters, both plain and figured; crotches; swirls; stumpwood and occasionally burls). *Characteristics:* Moderately heavy; very strong for its weight; exceptionally stable. *Uses:* Furniture; architectural woodwork; gunstocks; novelties. *Availability:* Abundant as veneers and plentiful as lumber. *Price Range:* Medium to costly for highly figured types.

WALNUT, AUSTRALIAN — See Orientalwood

WALNUT, AUSTRIAN — See Walnut Persian

WALNUT, BENIN — See Tigerwood

WALNUT, BRAZILIAN — See Imbuya

WALNUT, CALIFORNIA *(Juglans hindsii* (Jepson), Rehder; and *Juglans californica,* Watson*)* — See Walnut, Claro

WALNUT, CIRCASSIAN *(Juglans regia,* Linn.*)*
Source: Europe. *Color:* Tawny-colored. *Pattern:* Variegated streaks of black or dark brown; these pigment streaks passing across the growth rings are typical of Circassian. Occasionally crotches and swirls. *Characteristics:* Not as strong or hard as American Walnut, but otherwise about the same properties. *Uses:* For centuries has been used for highly decorative furniture, woodwork and gunstocks. *Availability:* As veneer — rare; as lumber — scarce. *Price Range:* Expensive.

WALNUT, CLARO *(Juglans hindsii)* — California Walnut. There is considerable confusion as to the exact species of *Juglans* that produces Claro Walnut. It is a fast-growing walnut from southern Oregon and northern California coastal area and some authorities claim it comes from *Juglans regia.*

Source: California and Southern Oregon, east of Coast Range. *Color:* Tannish brown with dark brown. *Pattern:* Wavy grain. Prominent light stripes. Quarters, often fiddleback figure; crotches and swirls. *Characteristics:* Moderately heavy; hard; rather open-grained. *Availability:* As quartered veneers — rare; as lumber — not available. *Price Range:* Medium to costly.

WALNUT, FRENCH *(Juglans regia,* Linn.*)*
Source: France. *Color:* Soft and quite grey-brown; lighter in color than American Walnut. *Pattern:* Fine, smooth

156 — YELLOW POPLAR (2 pc.)

157 — YEW (2 pc.)

grain; less prominent growth lines than Circassian Walnut. *Uses:* Same as Circassian. *Availability:* Scarce. *Price Range:* Expensive.

WALNUT, ITALIAN — See Walnut, Persian

WALNUT, NIGERIAN GOLDEN — See Tigerwood

WALNUT, ORIENTAL — See Orientalwood

WALNUT, PERSIAN — *(Juglans regia,* Linn.*)* — Persian Walnut is the wood of European-Asiatic trees. It is grown in many countries and marketed as English, Italian, Turkish, Bulgarian, Spanish, Austrian and Russian Walnut, according to locale or source.

WALNUT, QUEENSLAND — See Orientalwood

WHITEWOOD, AFRICAN — See Ayous

WHITEWOOD, AMERICAN — See Basswood and Yellow-Poplar

WILLOW, BLACK *(Salix nigra,* Marsh.*)* — Used largely as lumber. Known in the casket trade as "Salis."

WIRMANA — A trade name
Source: Africa. *Color:* Similar to fresh-cut mahogany. *Pattern:* Nearly always striped. *Availability:* Rare. *Price Range:* Medium.

YELLOWPOPLAR *(Liriodendron tulipifera,* Linn.*)* — Tuliptree, Whitewood *(See Plate 156)*
Source: New England to Michigan, Appalachians to Gulf. *Color:* Canary color, sometimes with slightly greenish cast and occasionally with rather dark streaks. *Pattern:* Even texture; straight grain. *Characteristics:* Light to medium weight; strength; soft; easily worked. *Uses:* As veneers — widely used for cross-banding and backs of plywood; as lumber — interior finish or fixtures (usually to be painted); boat building; core stock; woodenware. *Availability:* Veneer (quartered, sliced, half-round, *rotary,* occasionally burls) — abundant; lumber — available. *Price Range:* Inexpensive.

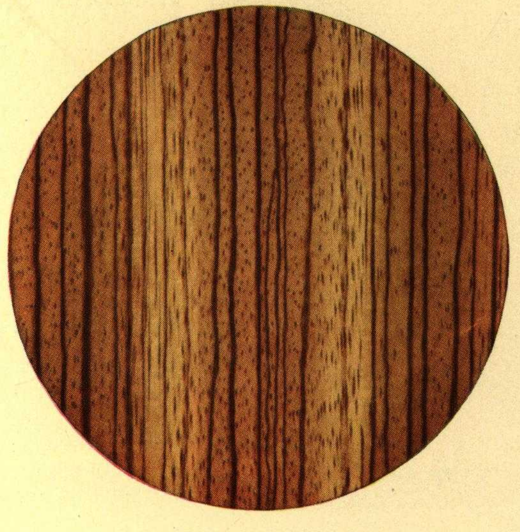
YEW, AMERICAN *(Taxus spp.)* — Florida, Pacific or Western Yew *(See Plate 157)*
Source: Pacific Coast and Southwestern Canada. *Color:* Reddish-brown. *Pattern:* Close grained. Often highly *grain figured*. *Characteristics:* Heavy; hard; available in very small sizes. *Uses:* Veneers — decorative areas of fine furniture; lumber — archery bows. *Availability:* Rare as both veneers and lumber. *Price Range:* Costly.

YEW, ENGLISH *(Taxus, baccata,* Linn.*)*
Source: England. *Color:* Pale red, somewhat like cherrywood or pencil cedar. *Pattern:* Smooth, lustrous grain. Wild grain gives much character. *Characteristics:* Strong; elastic. *Availability:* In small sizes — rare. *Price Range:* Costly.

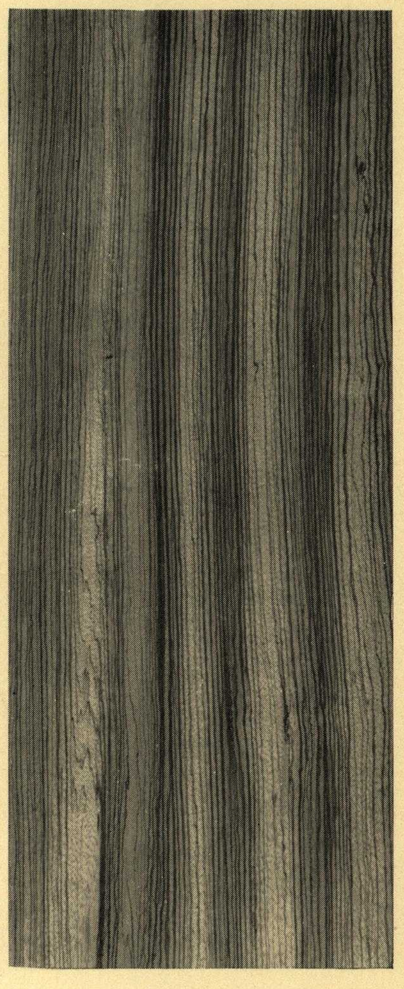
YUBA *(Eucalyptus obliqua,* L'Herit.*)*

Zapota *(Achras zapota,* L.*)*
Source: A South American wood imported only rarely.

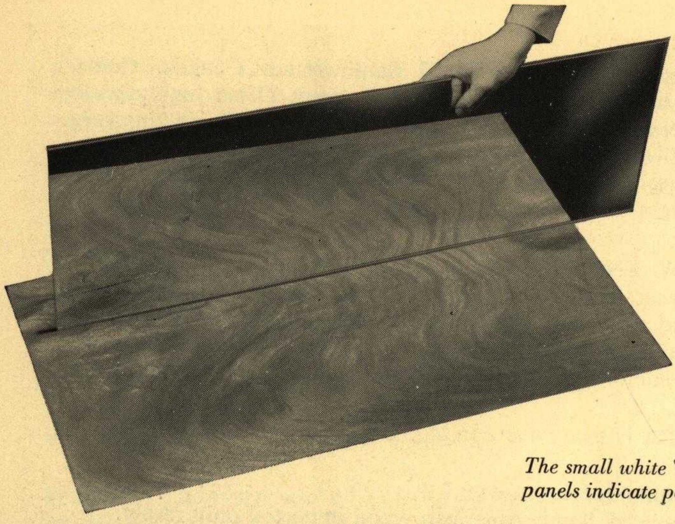
ZEBRAWOOD *(Microberlinia brazzavillanensia* or *Brachystegia spp.)* — Zebrano, Zingana *(See Plates 158-159)*
Source: African Cameroon; Gaboon, West Africa. *Color:* Straw and dark brown. Exceptionally pronounced fine stripes. *Pattern:* Striped; dark brown stripes; lustrous surface. *Characteristics:* Heavy; hard; with somewhat coarse texture. *Uses:* Veneer — inlays. *Availability:* Veneer (quartered) — rare to available. *Price Range:* Costly.



158 — ZEBRAWOOD (close up)



159 — ZEBRAWOOD

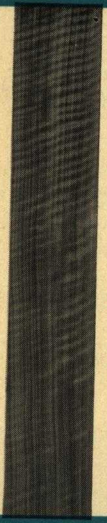


THE TRICK IS IN THE MATCHING

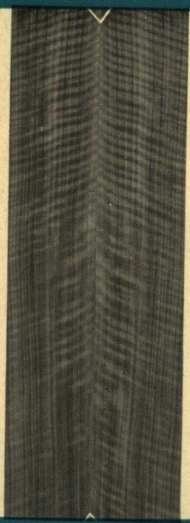
. . . with or without mirrors.

There is a real challenge to the creative designer in the matching and blending of beautiful veneers. The types available are many and varied; the effects obtainable are limitless. To those who inquire "What's new?" . . . take your choice of the ideas on these pages . . . create others.

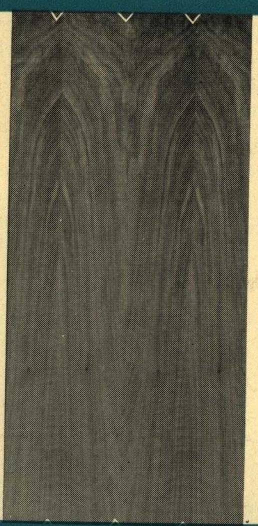
The small white "V" marks appearing on pictures of matched panels indicate points at which pieces are matched.



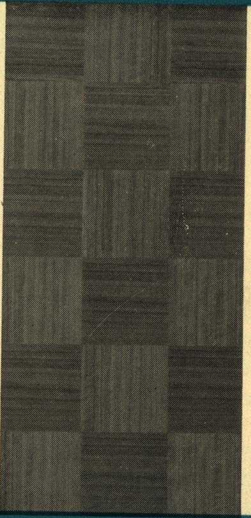
165 — Single sheet, Quarters, figured (walnut)



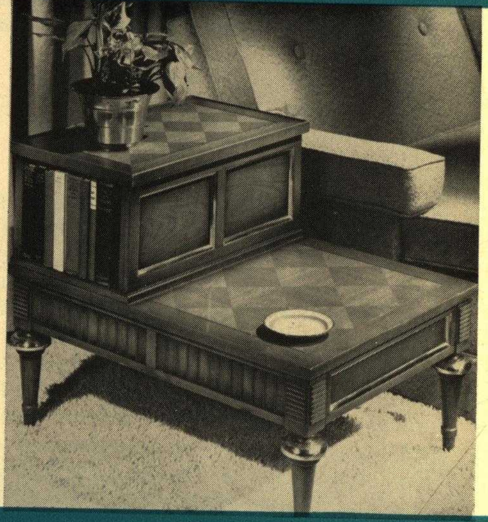
166 — Same 2 pc. — book-matched, fiddle-back figure



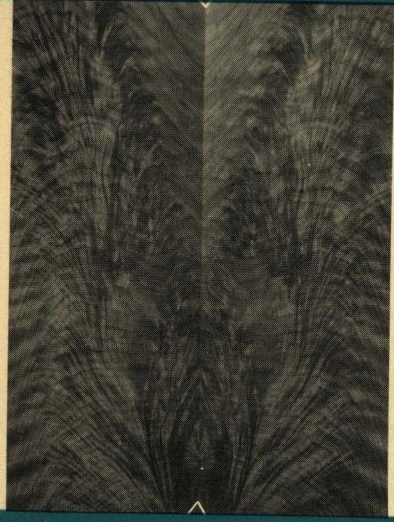
167 — Plain quarters — 4 pc. book-matched — cathedral effect



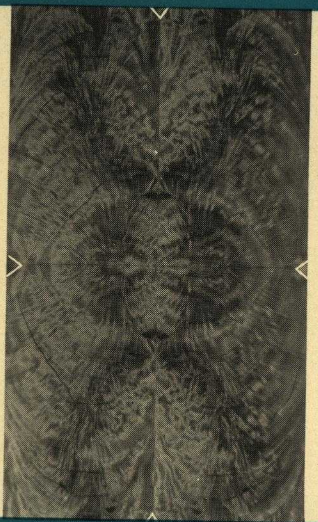
168 — Blocks or squares — plain quarters



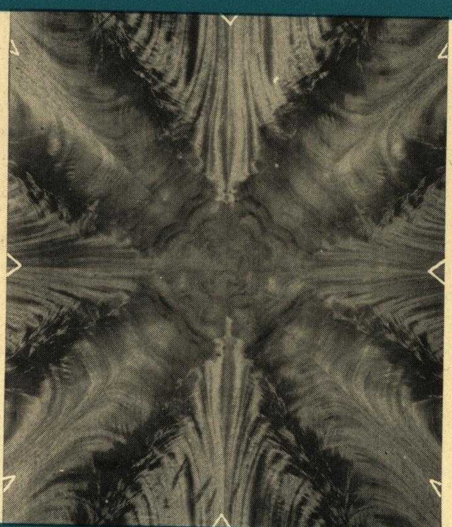
169 — Diagonal squares of quarters (parquetry)



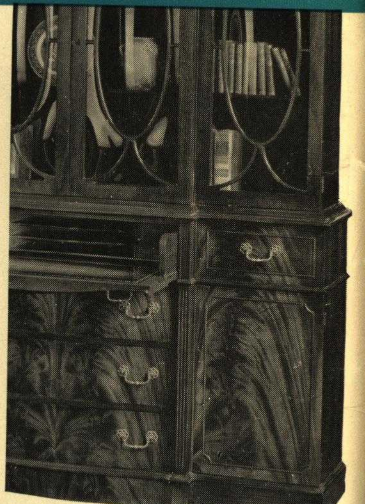
174 — Crotch (walnut) (feather figure) 2 pc. book-matched



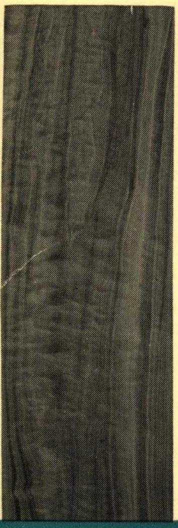
175 — Crotch (avodire) 4 pc. book and butt-matched



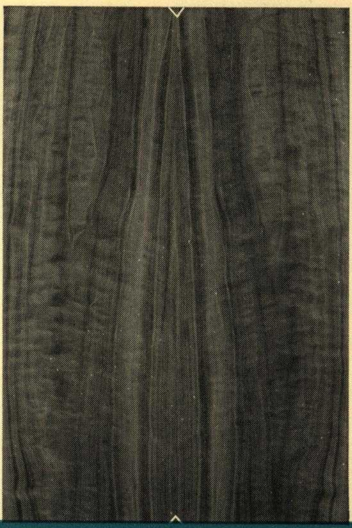
176 — Crotch (mahogany) 8 pc. diagonal-matched (each pair book-matched)



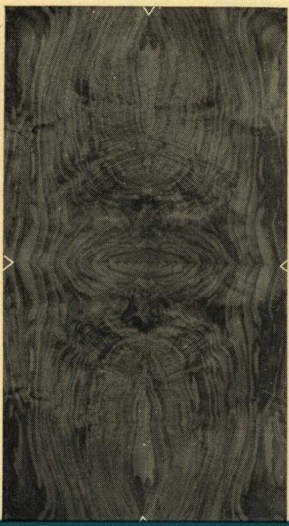
177 — Crotch — Drawers of 2 pc. book-matched; doors single piece



161 — Single sheet, flat-cut, semi figured (walnut)

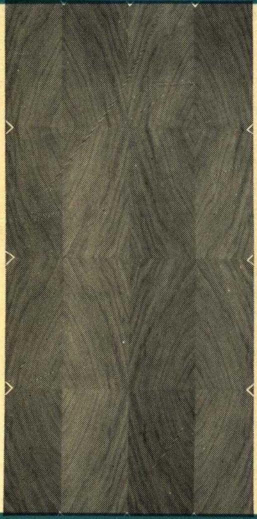


162 — Same — 2 pc. book-matched



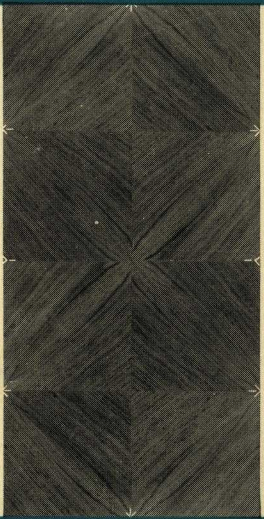
163 — Butt and book-matched (4 pc.) (Circassion type)

164 — Flat cut — 2 pc. book-matched walls and doors (Mahogany)

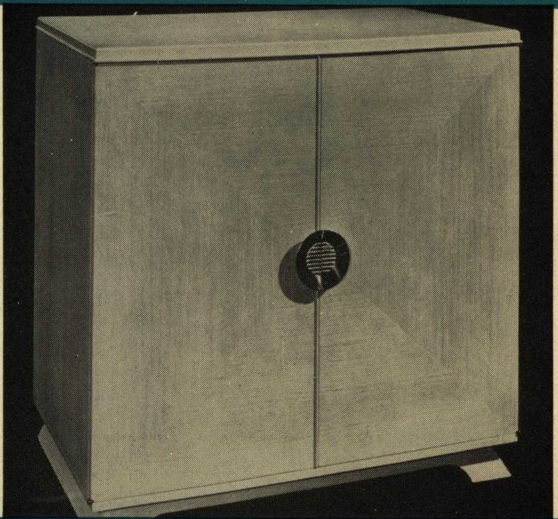


170 — Soft diamond 16 pcs. quarters

171 — Book-matched quarters — "Cathedral tips"



172 — 16 piece, quarters — each pair book-matched; upper and lower ½ makes diagonal square; center ½ makes reverse square

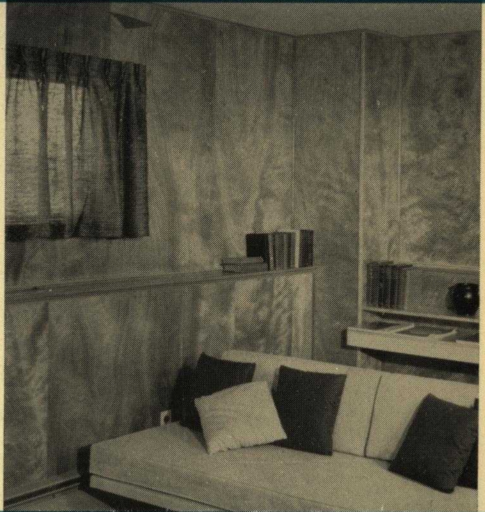


173 — Square formed of slip-matched, rift cut (white oak)

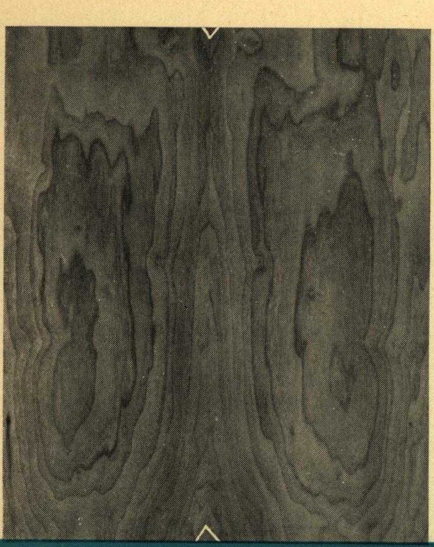
178 — Swirl — (mahogany) single piece

179 — Swirl (rosewood) Front of TV-Hi-Fi cabinet made of 4 pc. book-matched

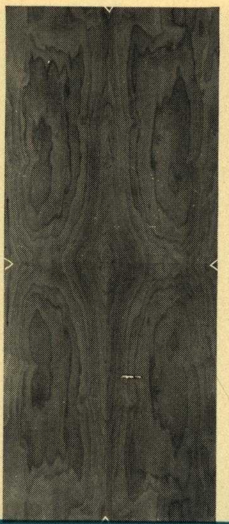
180 — Wall in Grand Rapids Guild Galleries of slip-matched, swirly flat cut (walnut) "casual-matched"



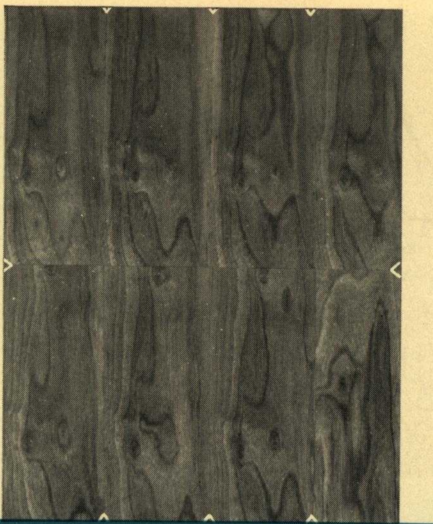
181 — Swirly samara — "casual-matched"



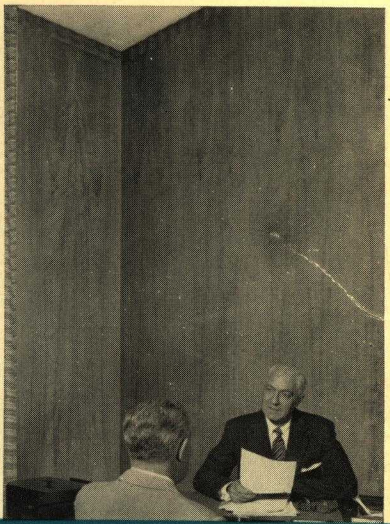
182 — Rotary 2 pc. — book-matched



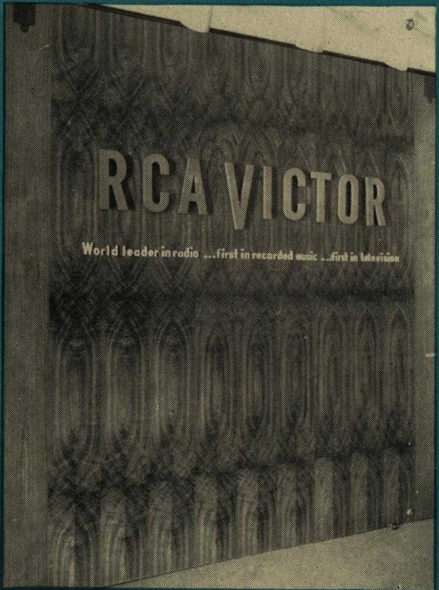
183 — Same, 4 pc. — book and butt-matched



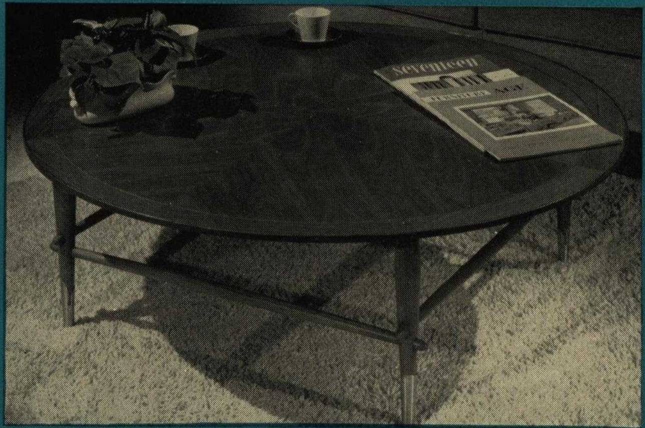
184 — Rotary (character marked) walnut 8 pc. — slip-matched



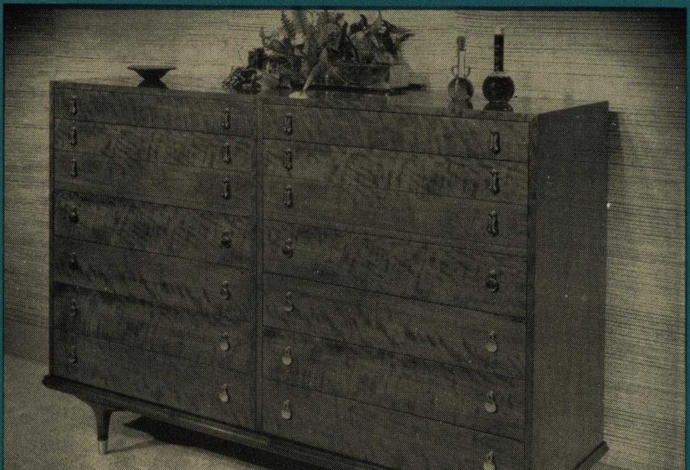
185 — Book-matched teak walls


RCA VICTOR
World leader in radio ... first in recorded music ... first in television

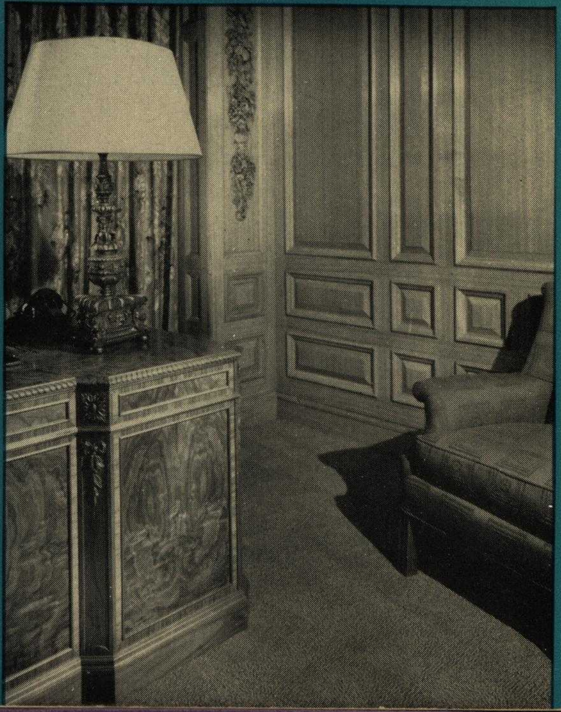
186 — Book and butt-matched, flaired ends of figured quarters (walnut)



187 — "Butterfly" design; slip-matched, flat cut laid diagonally



188 — Slip-matched, figured cherry



189 — Desk panel, 2 pc. book-matched stumpwood or swirl; walls — book-matched plain quarters (walnut)

YOUR FINE HARDWOODS SERVICE AND INFORMATION CENTER

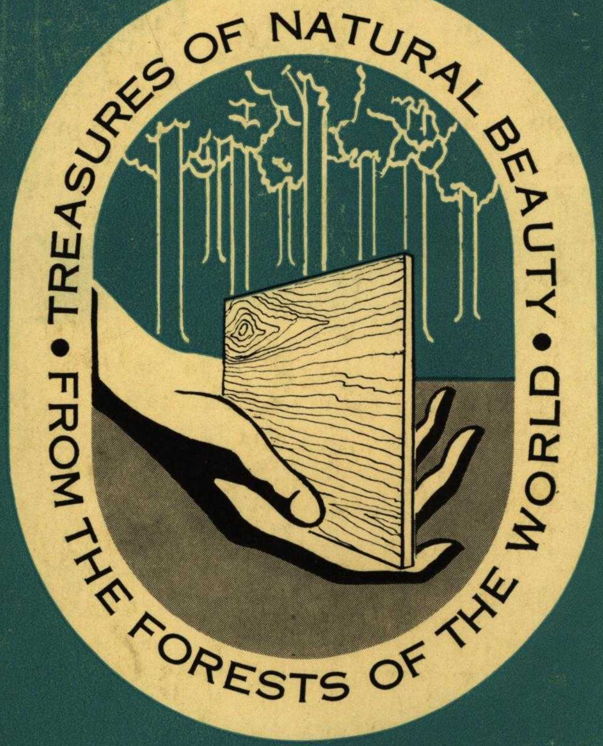
Formerly known as the "Veneer Association," the Fine Hardwoods Association (FHA) is devoted to the promotion of a fuller appreciation and use of hardwoods of all species. FHA in no way supplants the valuable work of the individual species groups such as the birch, mahogany or walnut associations, but rather supplements them by developing and providing a broader type of information and technical service on all hardwoods.

Located in space 1730 of the American Furniture Mart, Chicago, FHA facilities include an exhibit of hardwood figure types and finishes, a projection room, extensive hardwood reference data, photo files and conference room. A perpetual, current inventory list of more than 100 species and types of available veneers is maintained at FHA headquarters for the convenience of architects, designers and all who specify or use fine cabinetwoods.

FHA's program includes the continual development and publication of all types of data on the sources and properties of cabinetwoods and their application to various specific uses and products. FHA provides to industry, designers, architects, other professional groups and schools much valuable basic information never before readily available in ready-reference form. This "Selectorama of Fine Hardwoods," for example, brings together in a single volume (with many full color illustrations) authentic data on the characteristics and properties of popular species of domestic and imported hardwoods obtainable from American producers.

Typical of the assistance FHA gives to specific industries is the 20-minute full color sound-slide film, produced in cooperation with the National Retail Furniture Association, to teach retail home furnishings salesmen the basic facts and qualities of fine hardwoods. This sales training film is used by stores all over the country and for showing to consumer groups.

One of FHA's major objectives is to keep before American homemakers the functional qualities and inimitable natural beauty of fine hardwoods. This is accomplished through all available publicity channels and by working closely with newspaper and magazine editors and radio and TV stations in the preparation of special feature presentations on the contributions of fine hardwoods to better modern living.



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